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An exploration of midwives' and obstetricians' perceptions of risk in relation to care practices for low-risk women and normal childbirth

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Abstract

Title of thesis: An exploration of midwives' and obstetricians' perceptions of risk in relation to care practices for low-risk women and normal childbirth

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This thesis explores how midwives' and obstetricians' perceptions of risk affect care practices for low-risk women and normal childbirth. Four academic papers are incorporated into the thesis. The research aims to provide an understanding of how perceptions of risk may contribute to intervention during birth. Areas investigated include factors that contribute to midwives and obstetricians feeling safe or unsafe when facilitating birth, their trust in physiological birth and their attitudes towards the importance of achieving normal birth

A systematic integrative review was undertaken (Paper 1), synthesising data from 13 studies, identified on the basis of a pre-determined search strategy. This review highlighted an assumption of abnormality in the birthing process. Following this, a discussion paper (Paper 2) was published that presented an over-view of the current structures and processes of maternity care, incorporating preliminary results from the primary qualitative study into the discussion. The primary qualitative study (Papers 3 and 4) involved analysing data gathered from semi-structured interviews with 16 midwives and nine obstetricians recruited from hospitals, midwifery-led units and the community. The findings highlight that in the current climate of risk management and intense surveillance of birth, midwives' professional identity as promoters and protectors of normal birth is in jeopardy. Fear of litigation and implication in adverse outcomes and an increased focus on risk management duties are contributing factors. Apparent is that outcomes, particularly infant and maternal mortality rates, take precedent over compassionate, holistic care where the former are the quality markers currently used to assess maternity care.

This thesis concludes that midwifery must become more pro-active in supporting physiological birth. There must be a refocus on how maternity care is organised and reflection on the hierarchy of outcomes if services are to become more woman-centred. Implications of the findings of this thesis on maternity practice and policy are discussed in the final chapter.

List of Publications: Papers 1 - 4

This thesis is based on the following four papers, three of which are published and one which is under review:

Healy, S., Humphreys, E. and Kennedy, C. (2016) 'Midwives' and obstetricians' perceptions of risk and its impact on clinical practice and decision-making in labour: An integrative review', *Women and Birth*, *29*(2), 107-116, available: DOI: http://dx.doi.org/10.1016/j.wombi.2015.08.010

Healy, S., Humphreys, E. and Kennedy, C. (2016) 'Can maternity care move beyond risk? Implications for midwifery as a profession', *British Journal of Midwifery*, *24*(3), available: DOI: http://dx.doi.org/10.12968/bjom.2016.24.3.203

Healy, S., Humphreys, E. and Kennedy, C. (2017) 'A qualitative exploration of how midwives' and obstetricians' perception of risk affects care practices for low-risk women and normal birth', *Women and Birth*, 30(5), 367-375, available: DOI: http://dx.doi.org/10.1016/j.wombi.2017.02.005

Healy, S., Humphreys, E. and Kennedy, C. (2017) 'Challenges in balancing risk with 'care' in maternity practice: A qualitative study of midwives' and obstetricians' perceptions of risk', **under review**, *Midwifery.*

Declaration

I declare that this thesis, apart from due acknowledgements, is entirely my own work. My contribution to each of the academic papers, on which this thesis is based, is outlined in Table A. It has not been submitted for another degree at this or any other University.

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Signed: _____

Sandra Healy

Date: _____

Table A: Author contribution to included research papers			
Paper	**Title**	**Authors**	**Contribution of thesis author (SH) to the paper**
1	Midwives' and obstetricians' perceptions of risk and its impact on clinical practice and decision-making in labour: An integrative review	**Healy, S., (SH)** Humphreys, E. (EH) & Kennedy, C. (CK)	▪ Paper conception and design - **SH** with supervisors CK and EH ▪ Review of literature – **SH** lead ▪ Drafting of manuscript – **SH** was first author and lead ▪ Critical revisions of manuscript - **SH** with supervisors CK and EH ▪ Final preparation and editing of manuscript and submission to journal - **SH**
2	Can maternity care move beyond risk? Implications for midwifery as a profession	**Healy, S., (SH)** Humphreys, E. (EH) & Kennedy, C. (CK)	▪ Paper conception and design - **SH** with supervisors CK and EH ▪ Drafting of manuscript – **SH** was first author and lead ▪ Critical revisions of manuscript - **SH** with supervisors CK and EH ▪ Final preparation and editing of manuscript and submission to journal - **SH**
3	A qualitative exploration of how midwives' and obstetricians' perception of risk affects care practices for low-risk women and normal birth	**Healy, S., (SH)** Humphreys, E. (EH) & Kennedy, C. (CK)	▪ Paper conception and design - **SH** with supervisors CK and EH ▪ Data collection and analysis – **SH** was lead with input from supervisors CK and EH ▪ Drafting of manuscript – **SH** was first author and lead ▪ Critical revisions of manuscript - **SH** with supervisors CK and EH ▪ Final preparation and editing of manuscript and submission to journal - **SH**
4	Challenges in balancing risk with 'care' in maternity practice: A qualitative study of midwives' and obstetricians' perceptions of risk	**Healy, S., (SH)** Humphreys, E. (EH) & Kennedy, C. (CK)	▪ Paper conception and design - **SH** with supervisors CK and EH ▪ Data collection and analysis – **SH** was lead with input from supervisors CK and EH ▪ Drafting of manuscript – **SH** was first author and lead ▪ Critical revisions of manuscript - **SH** with supervisors CK and EH ▪ Final preparation and editing of manuscript and submission to journal - **SH**

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And finally, thank you to my husband Declan. Without you I never would have started and I most definitely would not have finished but with your endless encouragement, support and love here I am, ready to submit.

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List of Abbreviations

CCAT	Crowe Critical Appraisal Tool
CEFM	Continuous Electronic Fetal Monitoring
CTG	Cardiotocograph
DOMINO	**Dom**iciliary **In O**ut
HSE	Health Service Executive (Ireland)
NHS	National Health Service (England)
NMBI	Nursing and Midwifery Board of Ireland
NMC	Nursing and Midwifery Council (United Kingdom)
OECD	Organisation for Economic Co-operation and Development
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analyses
PICO	Patient, Problem or Population, Intervention, Comparison, Outcome
SPIDER	Sample, Phenomenon of Interest, Design, Evaluation, Research
UK	United Kingdom
USA	United States of America

Chapter 1: Introduction

1.1 Introduction

This thesis examines how midwives' and obstetricians' perception of risk affects care practices for low-risk women and normal birth. This chapter begins by summarising the structure of the thesis and briefly describes the research publications that form the body of the thesis. The chapter then provides the background for the thesis with an explanation and discussion of individual factors that illustrate the broader literature in which the research is located. It sets out key characteristics of maternity services in the Republic of Ireland and briefly compares these to maternity services in other countries. This will assist the reader in contextualising the study. The chapter provides a rationale for the research and then, the aims and objectives of the study are outlined. Following this, I locate myself within the research by providing a synopsis of my background and how I conducted the study. Finally, the research design and methodology for the primary study on which the thesis is based are presented in detail.

1.2 Structure of thesis

This thesis is presented as a PhD by publication based on four research papers. Three papers have been published in peer reviewed journals and one is currently under review with a publisher. These four papers form chapters 2, 3, 4, and 5 of this thesis. Some formatting changes have been made to the published versions of these papers to aid presentation and readability. Copyright permission was granted from the relevant journals to include the research publications in this thesis (the version of the papers included in the thesis are the last version submitted to the publishers prior to the final editing, in compliance with the copyright agreements). For the purpose of this thesis, the referencing style of each paper has been changed from that accepted by the journal to Harvard UL style, to comply with University of Limerick regulations.

The thesis is comprised of six chapters:

1. Introduction
2. Paper 1 – Midwives' and obstetricians' perceptions of risk and its impact on clinical practice and decision-making in labour: An integrative review (literature review)
3. Paper 2 - Can maternity care move beyond risk? Implications for midwifery as a profession (discussion paper)

4. Paper 3 - A qualitative exploration of how midwives' and obstetricians' perception of risk affects care practices for low-risk women and normal birth (findings from primary research study part 1)
5. Paper 4 - Challenges in balancing risk with 'care' in maternity practice: A qualitative study of midwives' and obstetricians' perceptions of risk (findings from primary research study part 2)
6. Discussion and conclusion

Chapter 1 introduces the thesis and provides a background and rationale for the study. It also presents the four research papers on which the thesis is partly based and acknowledges the authors contributions to each of these papers. The methodology for the primary research study is presented in detail in this chapter.

Chapter 2 presents a published systematic integrative review of literature pertaining to the research area and is the first of the published papers (Paper I). This review asked what factors affect midwives' and obstetricians' perceptions of risk when facilitating care for low-risk women in labour. Thirteen primary research studies met the inclusion criteria for the review and the findings demonstrate an assumption of abnormality in the birthing process that leads to unnecessary intervention and surveillance by healthcare professionals. It is presented primarily in the form of the final draft that was submitted to the publishers directly prior to publication.

Chapter 3 presents Paper 2, a discussion paper that reflects on the implications of the preliminary findings of the interviews on maternity care. It identifies how socio-cultural factors affect women's and midwives' risk perceptions regarding birth and the impact of this on maternity care. It proposes that both the structural and operational processes of the maternity services are impacting risk perceptions and, thus, care. It is presented primarily in the form of the final draft that was submitted to the publishers directly prior to publication.

Chapter 4 presents the first section of findings from the primary research study, Paper 3. It focuses on how risk has affected midwifery professional identity and demonstrates how this is partly because of working in an environment where fear of litigation and certain adverse outcomes affect decision-making and care. It is presented primarily in the form of the final draft that was submitted to the publishers directly prior to publication.

Chapter 5 presents the second section of findings from the primary research study, Paper 4. It is presented predominantly in the form that has been submitted to the publishers. It focuses on the lack of formal reflection and education available for midwives and obstetricians to help them manage risk appropriately. It also proposes the theory that outcomes are prioritised over process in the maternity services, resulting in a deficit of woman-centred care.

Chapter 6 forms the discussion and conclusion of the thesis. It presents an overview of the findings of the research and incorporates a discussion on the theoretical, methodological and practical implications of the thesis. It concludes with a brief discussion on the contribution of this thesis to the existing body of literature and makes suggestions for further research in this area.

1.3 Definition of key terms

1.3.1 Definition of risk

> Uncertainty denotes a future that cannot be predicted, an unknown. By contrast, thinking in terms of risk is a process of mitigating those unknowns, minimising the unpredictability of the future in an attempt to improve outcome.
>
> (Scamell 2014, p. 921)

1.3.2 Definition of a low-risk woman

The definition of a low-risk woman for this thesis reflects the criteria used by the Health Service Executive Ireland (HSE) to identify women suitable for a homebirth. Four tables, presented in Appendix A, assist healthcare providers in determining the risk status of a woman. Exclusion of the criteria in tables 1 and 2 deem a woman low-risk and hence suitable for a homebirth. Tables 3 and 4 identify women who have a higher level of risk but may still have a homebirth if a consultant obstetrician assesses their suitability. These criteria form part of a memorandum of understanding between the self-employed community midwife and the HSE. For the purposes of this thesis low-risk pertains to women excluded from the criteria in tables 1 and 2.

1.3.3 Definition of normal birth

A normal labour and delivery is one ‘without induction, without the use of instruments, not by caesarean section and without general, spinal or epidural anaesthetic before or during delivery’.

This definition of normal birth has been adopted from the Maternity Care Working Party (United Kingdom (UK)) consensus statement on making normal birth a reality (Dodwell 2012). This working definition of the consensus statement was used by the information centre for the National Health Service (NHS) in England.

1.4 Risk

This thesis is based upon midwives' and obstetricians' perceptions of risk and how it affects the care they facilitate. This section outlines the concept of risk and the theories underlying this in the broader literature. It then goes on to give an account of literature exploring how risk has affected maternity care. It pays attention to how risk has affected pregnant and birthing women, the healthcare professionals who work within the maternity services and choice and uptake of services.

1.4.1 Concept of risk

The word 'risk' has changed meaning and become more common since the middle ages (Lupton 1999a). Initially it signified an objective danger, free from human fault or responsibility (Lupton 1999a) but the concept of risk now implies the possibility that the future can be altered by human activity (Zinn 2008). Within the literature there is a distinction made between risk and uncertainty; risk is a process of minimising the unpredictability of the future or mitigating unknowns to improve outcomes whereas uncertainty signifies a future that is unknown and cannot be predicted (Scamell 2014). Giddens (1991) describes risk as activities of security or 'colonising the future'. The terms 'risk' and 'uncertainty' are often now used interchangeably, affirming that the term 'risk' may be used to describe something that is a danger even where the probability of harm resulting from the danger cannot be calculated (Lupton 1999a).

The concept of risk, originally a neutral term where both 'good' and 'bad' risk was recognised, has increasingly become associated with danger and negative or undesirable outcomes (Douglas 1992). Concern about negative risk has intensified with the word conjuring up feelings of anxiety and there is a suggestion that individuals now live in a constant state of low-intensity fear (Lupton 1999a). Beck (1992) highlights how objective dangers have been selected and converted by society into risks that must be mitigated. These current anxieties can be traced back to the beginnings of modernity, an era in which industry, science and technology were seen as the key to human development and a means of solving all our problems (Beck 1992, Lupton 1999a, Skinner 2008). As we move into the postmodern era these beliefs and assumptions are

beginning to be challenged but this has left society in a contradictory existence, where on one hand there is a desire to intensely control or avoid risk but on the other knowing that this can never be achieved (Skinner 2008).

1.4.2 Theories of risk

Two approaches to understanding risk have been identified in the literature: the techno-scientific or techno-rational approach and the socio-cultural approach. Techno-scientific theory conceptualises risk as measurable and constructs individuals as calculating, rational and emotion-free actors (Lupton 1999a). This approach claims to have the ability to define what is normal in a population and what is abnormal and thus potentially a risk (Skinner and Maude 2016). Technology, surveillance and intervention are seen as methods to objectively define and mitigate risk (Cartwright and Thomas 2001). However, this approach fails to incorporate individual perceptions of risk or social factors into the equation (Lupton 1999a).

Socio-cultural theories see risk as dependent not just upon knowledge but also on socio-cultural and individual values. These theories highlight the complexity of risk and contribute to an understanding of how society in its attempts to mitigate risk can, in reality, create further risk. Douglas (1992) believes that society is risk-averse but so inefficient with handling information that it has become an unintentional risk-taker. She argues that culture has a strong influence on risk and believes that many decisions are culturally-mediated and cultural notions of risk prevail over rational thinking in decision-making. Beck (1992) makes a significant contribution to social theory of risk, arguing that we now live in a 'risk society' where we are immersed in risk. While society has never been safer, it is caught in a paradox, where technology and scientific calculation cannot control risk but nonetheless we act as though we expect it to (Skinner and Maude 2016). In Foucault's social theory of governmentality, risk is perceived as a strategy to gain power and control where power as knowledge is evident everywhere in society (Zinn 2008). In this scenario, an individual's behaviour is seen to be dependent upon socially-available risk knowledge (Zinn 2008). These theories of risk and their central concepts are summarised in Table 1.1. In the table the concepts underpinning relevant social theories are adapted from Zinn (2008) while the concepts related to the techno-scientific theory are adapted from Lupton (1999a). Social theories of risk focus on social change and knowledge transmission in advanced societies, cultural factors, values, power and social control while the techno-scientific approach focuses on calculation of probabilities of risk.

Table 1.1: Theories of risk and their central concepts		
Risk theory	**Influenced by**	**Central concepts**
Risk society and reflexive modernisation	Ulrich Beck Anthony Giddens	*In advanced modernity the social production of wealth is systematically accompanied by the social production of risks. *Society is changing from one primarily driven by class conflicts to a society driven by risk conflicts. *Society is being transformed by processes of individualisation and institutionalised individualisation. *Limits of knowledge and control as well as the fragmentation of knowledge production produce risks *Loss of class knowledge and other traditional knowledge produces uncertainties
Governmentality of risk and self-surveillance	Michel Foucault	*Based on the understanding that populations, in communities and as individuals, are required to be measured, managed and protected to maximise productivity, wealth, health and welfare *Socially-available risk-knowledge structures individuals' behaviour *Culture is the background against which societies are governed *Theorises risk from a perspective of power and control. Risk comes into play as a power strategy. Power as knowledge is displayed everywhere in society *Concerned with how calculative techniques, i.e. risk, are used and how they are embedded in social discourse and practice
Social and cultural	Mary Douglas John Tulloch Deborah Lupton	*We cannot detach the reality of risks from cultural values *Risks threaten the value systems of social groups and social identities *Dichotomy of rationality and emotions; but emotions are also a resource for social change *Risk is perceived as a real danger that is transformed into a transgression of social values of a social group
Techno-scientific		*Brings together the notion of danger or hazard with calculations of probability. Risk is defined as 'the product of the probability and consequence (magnitude and severity) of an adverse event' *The nature of risk is taken for granted and does not consider how risks are constructed as social factors. Calculations tend to treat situations as objective facts despite most practitioners acknowledging that subjectiveness is an inevitable element of human judgement *There may be an ill-masked contempt for lay people's lack of what is deemed to be 'appropriate' or 'correct' knowledge about risk, for example, intuition

1.4.3 Risk and childbirth

The concept of risk now controls almost every feature of maternity care (Smith *et al*. 2012) and is a reflection of the risk culture in wider society (Scamell 2014). Despite ever increasing levels of childbirth safety in high-income-countries, risk discourse has intensified (Possamai-Inesedy 2006) and the language of birth has evolved to incorporate words such as 'hazard', 'harm', 'blame', 'vulnerability' and 'safety' (MacKenzie Bryers and van Teijlingen 2010). The focus of pregnancy and birth has shifted from accepted uncertainty towards risk prevention, resulting in the increased use of medical input, technology, clinical governance and risk-management strategies (Alaszewski and Scamell 2016). Contributing to this, the growth of risk culture has increased expectations from the public of achieving a positive outcome, leading to spiralling litigation costs when outcomes are not as expected (MacKenzie Bryers and van Teijlingen 2010, Smith *et al*. 2012). While the aim of clinical governance and risk management is to reduce risk to women availing of the maternity services, the health organisation and the individuals within the organisation, there is a strand of thought suggesting that it may also be a public relations exercise to convince the public that services are safe (MacKenzie Bryers and van Teijlingen 2010). Edwards and Murphy-Lawless (2006) believe that risk management, rather than reducing risk to women, may be exposing them to more intervention than is necessary as a result of heightened perceptions of risk. This attempt to alleviate public anxiety through risk management strategies and an enduring commitment to the medical model of childbirth can be linked to Beck's theory of a risk society that questions technology and intervention but at the same time believes it can prevent risk (MacKenzie Bryers and van Teijlingen 2010).

Contributing to the risk debate on childbirth is the focus on absolute risk and how maternity statistics and outcomes are collected and analysed (MacKenzie Bryers and van Teijlingen 2010). This focus not only places emphasis on clinical outcomes but often disregards social and environmental issues (Downe 2008). In our current hospital services the health of the population surpasses that of the individual and this results in many instances of low-risk healthy women giving birth in high-risk units (MacKenzie Bryers and van Teijlingen 2010). In addition, the centralisation of many maternity services, while aiming to provide specialist, high quality care to whole populations as a logical approach to maternity planning, can deprive women of choice and of having a birth that is aligned to their cultural preferences (MacKenzie Bryers and van Teijlingen 2010).

1.4.4 The impact of risk on provision and choice of different models of care for birth

In most countries childbirth is now viewed as a medical event where technology and medical expertise pledge to minimise the risks associated with it (Chadwick and Foster 2014). Scamell (2014) reminds us that birth was once considered so dangerous that in latter half of the last century almost all women gave birth in a hospital in certain countries. In more recent times social action and policy has advocated for a more social and less risk aversive approach to birth in maternity care but despite this, the majority of women continue to birth in hospital, medicalised models of care (Scamell 2014).

The social model of birth takes a holistic approach and considers individual and cultural perceptions of birth as central to risk assessment. Pregnancy and birth are seen as physiological processes where the mother is the lead decision-maker for her care and satisfaction with the experience is considered important. Environment is central to the social model (MacKenzie Bryers and van Teijlingen 2010). The medical model of birth views birth in a techno-scientific paradigm where technology and science are viewed as essential to risk assessment. Medical professionals are enabled to be in control of the birth process and outcomes are aimed at reducing maternal and infant mortality through treatment of clinical factors. Hospital is seen as the safe option (MacKenzie Bryers and van Teijlingen 2010).

While midwifery-led models of care may be considered social models not all midwives subscribe to the ethos of this model and likewise not all obstetricians subscribe to the medical model (MacKenzie Bryers and van Teijlingen 2010). Midwives working in high-intervention, medicalised settings may view childbirth as 'risky' compared to midwives working in low-intervention settings (Smith *et al*. 2012). The availability of medical resources may be appealing in case of emergencies, adding to a sense of safety for the midwife (MacKenzie Bryers and van Teijlingen 2010). MacKenzie Bryers and van Teijlingen (2010) believe midwives' attitudes to risk will affect the way they present care options to women. They suggest that midwives who believe risk can be predicted (aligned with a social model of care) will promote out-of-hospital birth whereas midwives who believe risk cannot be predicted (aligned with a medical model of birth) will not promote these options and advocate for a hospital birth.

Smith *et al*. (2012) suggest that perceptions of risk related to models of care is complicated by differences in how risk is interpreted between professionals and women.

When a woman chooses out-of-hospital birth, professionals' awareness of risk can tend to focus on clinical risks related to the management of labour and fears about a potential adverse outcome related to the unpredictability of birth, adopting a techno-scientific approach to risk. Women, on the other hand, tend to be more aware of social risks with their concerns related to separation from their family and a lack of continuity of carer (Kornelsen and Grzybowski 2012). For women, choosing a model of care for birth, based on their individual assessments of risk, can be a complex process. There may be little choice, as evident in Ireland (see section below on context of this research), or cultural and social factors may restrict their choice. As Scamell (2014) highlights, childbirth risks are never based on impartial, systematic calculations but reflect the views of wider society. Douglas (1992) similarly believes that risks cannot be detached from cultural values. This is most evident in the slow return to out-of-hospital birth, irrespective of research indicating the safety of this option (Brocklehurst *et al*. 2011). Women may be reluctant to choose this option as it has become culturally unacceptable in many societies due to the medicalisation of childbirth (Smith *et al*. 2012). On the other hand, women have demonstrated that they can be reflexive individuals by both rejecting and embracing the medical model of care, depending on their individual or cultural assessment of risk. Women choosing elective caesarean section, for instance, are seen to embrace technocratic constructions of risk and see this as reflecting their values of risk and safety (Chadwick and Foster 2014). In Ireland, orientation towards the medical model is portrayed through women's choice of private obstetric care (O'Connor 2006). Almost one-third of pregnant women in Ireland choose to bypass midwifery care and instead opt for expensive private care, mostly paid through private insurance, underwritten by public hospital care. These women may choose private consultant obstetric care to secure what they believe to be guarantees of greater levels of safety and lower levels of risk in the form of a medical expert (Smith *et al*. 2012).

For other women, rejecting the medical model satisfies their attempts to mitigate risk. An exploration of the literature by Holten and de Miranda (2016) reveals that some women challenge the dominant techno-scientific risk discourse by rejecting hospital as a safe place to birth. Chadwick and Foster (2014) studied women choosing homebirth and discovered that for these women, notions of risk move between endorsing and subverting the medical model. Biomedical risk plays a significant role in defining their views about the safety of childbirth; they draw on technology to manage their fears and uncertainties while simultaneously constructing the medical model as risky for birth.

Jomeen (2012) draws attention to how informed choice in relation to model of care may not always be feasible or desirable for women. She argues that choice is rarely straightforward because women must balance the desire for a positive experience with an assessment of risk and safety that is primarily concerned with a responsibility to their unborn baby. Despite policy assuming that choice is straightforward for women, the embedded nature of medical expertise is considered to constrain women; they find it difficult to resist the medical discourse on risk and hence rely on experts to guide their decisions (Jomeen 2012).

Choosing a model of care based on an assessment of risk can be a complex process for women. The expert view of what constitutes risk will often play a substantial role in influencing women in regard to choice of model of care. Many women embrace the medical model to satisfy their perception of safe care but alternatively others will reject it based on their social perception of risk.

1.4.5 The impact of risk on pregnant and birthing women

As the emphasis on risk in pregnancy and birth intensifies, society expects women to behave in a responsible, risk aversive manner and to make responsible choices about their pregnancies (Lupton 1999b). The social construction of pregnancy as an event in need of medical intervention ensures that it is perceived in terms of risk (Possamai-Inesedy 2006). The medicalisation of birth has resulted in women losing confidence in their ability to birth without intervention and introduces the concept of risk to pregnancy and birth. While the medical environment provides a sense of security for certain women it also heightens perceptions of risk by emphasising what might go wrong (Possamai-Inesedy 2006).

Women are confronted with a multitude of risks throughout pregnancy, ranging from warnings about poor diet to the dangers of alcohol and drugs (Rothman 2014). Risk now often acts as a moral regulation rather than a scientific probability (Scamell 2014). Women are scrutinised as to how their behaviour will affect the fetus which in turn results in the fetus becoming the object of public surveillance and regulation (Scamell 2014). As new risk technologies are introduced to pregnancy and birth, women increasingly are forced into more difficult decisions regarding accepting or declining tests to confirm normality (Lupton 1999b). As tests and interventions become more socially acceptable in maternity care, women perceive them as essential in preventing adverse outcomes (MacKenzie Bryers and van Teijlingen 2010). Compounding the

complexity of decision-making for women is the fact that pregnancy is portrayed within the scope of rationality and control but the reality is that many aspects of pregnancy, such as miscarriage, are beyond control (Lupton 1999b).

While health professionals and experts rely on scientific concepts of risk based on rational decision-making, for pregnant women their decisions are more likely to be emotionally- and culturally-based (Lupton 1999b). For women, their previous experiences and personal philosophy can be strong factors when contextualising risk and they do not often use statistical odds to determine their risk (Carolan 2009). Healthcare professionals often perceive risk drawing on population-based data but a woman will usually perceive it in relation to herself. When presented with the odds of '1 in 100', to a woman this may well mean she could be that one (Carolan 2009). Rothman (2014) highlights the complexity of risk decision-making for women by suggesting they intelligently, creatively and determinedly balance risks. She states it is not a matter of real risk versus perceived risk but an individual process by which risks are balanced and decisions made. The consumption of alcohol during pregnancy is given by Rothman (2014) as an example of the complexity of balancing risk; is it alcohol in pregnancy that is the risk, is it the lack of scientific evidence around it or is it society's response to it that is the risk?

Although women must engage in balancing risk and making decisions they are not always eager to take complete responsibility for choices made (Snowden *et al*. 2011). Snowden *et al*. (2011) suggest that women are willing to take a certain amount of responsibility for their pregnancy and birth but their willingness to relinquish control to healthcare professionals at a certain stage is evident. This is attributed to the consequences of making the wrong choice and detracts from women's ability to challenge the dominant risk discourse. Carolan (2009) suggests that healthcare professionals should create opportunities to engage women in subjective appraisals of risk that could include comparing risks to everyday life. This would help women to translate statistical risks that they are presented with in the medicalised setting into risks that are grounded in their lives.

What is evident from research is the complexity of risk for pregnant and birthing women and the impact of this on choice and decision-making. Women are under pressure to make 'responsible' choices and are often constrained by a dominant risk discourse that emphasises pregnancy and birth as medical events needing surveillance

and intervention. Healthcare professionals need to be aware of how women may assess risk through personal experience rather than scientific calculations.

1.4.6 The impact of risk on maternity healthcare professionals

For healthcare professionals, the intensified risk culture can be both stressful and confusing. Contributing to this stress is society's expectation of perfect outcomes and the suggestion that society cannot accept uncertainty, resulting in blame of individuals or organisations (MacKenzie Bryers and van Teijlingen 2010). This expectation of a perfect outcome can put professionals at risk by subjecting them to a blame culture that can result in professionals being 'undone by fear' (Dahlen 2010, p.156). This can lead to increasing levels of intervention and surveillance that are without scientific rationale (Dahlen 2016) and research has shown that being implicated in adverse outcomes and litigation can have devastating professional and personal consequences (Hood *et al*. 2010). Alternatively, risk management can be viewed as a means to support professionals and protect them from blame and litigation. This is evident when risks are defined in terms of exclusion criteria, for example, when a high-risk woman is deemed unsuitable for a homebirth (MacKenzie Bryers and van Teijlingen 2010). Ironically, these safety measures can also be seen to put the professional at risk when a woman declines to abide by clinical guidelines or policies but the professional cannot withdraw care.

An ethnographic study of midwives (Scamell and Alaszewski 2012) suggests that professional anxiety, which perpetuates risk-averse practices, detracts from women's and midwives' commitment to physiological birth. This study details a midwifery pre-occupation with risk, revealed through detailed surveillance of birth, unintentionally introducing a sense of risk for women. Coxon *et al*. (2012) believe that midwives find it difficult to juggle a commitment to normal birth with restrictions imposed by clinical policies and protocols, irrespective of personal ideology. Thus, midwives adopt a practice of benign paternalism in which they act in what they believe to be the woman's best interest without always including the woman's beliefs or values. Midwives may not be conscious of this practice but participate to avoid perceived adverse outcomes, because of a fear of litigation, and not to upset the routine practices of their unit. Scamell and Alaszewski (2012) imply that midwives, through their vigilant attention to technology and surveillance, can in fact be an obstacle to normal birth. Despite midwives unintentionally at times becoming obstacles to normal birth they have also developed techniques to avoid being completely restricted by the clinical governance

agenda of their institution in order to support normality. A study by Hollins Martin and Bull (2009) found that midwives are resourceful in finding ways to support both women's desire for low-intervention birth and an adherence to a hierarchical system. This included being economical with the truth in discussions with senior staff and persuading women to reject certain interventions that the midwife herself deemed to be unnecessary but may have been suggested by a senior staff member.

Apparent is that, for healthcare professionals, working in the risk culture of maternity care can be confusing. The fear of an adverse outcome can result in the adoption of increased surveillance and intervention, not always in the best interest of the woman. Complicating this, midwives are often required to adhere to institutional policies and guidelines that may conflict with social policy that advocates woman-centred care and choice provision. This results in a difficult working environment that can promote benign paternalism or, on the other hand, a certain level of subterfuge against the system.

The next section of this thesis presents an overview of the context of the study, presenting key statistics in relation to birth in Ireland. The maternity system in Ireland is described, highlighting the type and availability of options for women. These statistics and options are then briefly compared to maternity systems in several other high-income countries.

1.5 Context of thesis

1.5.1 What the current maternity services look like in Ireland

Ireland has a population of over 4.7 million people (CSO 2016) with 67,610 births recorded in 2014 (Health Pricing Office 2016). This represents a birth rate of 14.6 per 1,000 population, which is above the EU average (10 per 1,000, (OECD 2015). Perinatal mortality rates are in continual decline in Ireland and currently stand at 4.7 per 1,000 births, when corrected for congenital abnormalities, (Perinatal Mortality Group 2016). This represents a 13.9 per cent decrease over the decade (Health Pricing Office 2016). Direct maternal mortality rates in Ireland are as low as 3.25 per 100,000 maternities (Knight *et al* 2016). These figures demonstrate that it has never been safer to give birth in Ireland. However, a further trend from recent data is that vaginal birth is in decline. While the majority of women in Ireland continue to have a vaginal birth, caesarean section rates have been increasing steadily since 2007 (ESRI 2013). This is not unique to Ireland but reflects a trend across high-income countries. Ireland's

caesarean section rate of 29.5% for total maternities (Healthcare Pricing Office 2016) is slightly above the OECD average (OECD 2015). The reasons for this are multifaceted and include: risk of litigation, higher maternal age, assisted reproduction resulting in multiple births and a reduction in the risks associated with caesarean section (Ireland, Department of Health 2016).

A recent review of Irish maternity services (Ireland, Department of Health 2016), included a review of international experiences from developed countries and reviewed the Irish experience against this backdrop. This review stemmed from a concern for the safety and quality of maternity services including a lack of care options available to pregnant women in Ireland. It identified how consultant-led services work well for complex pregnancies and emergency management but are over-medicalised for low-risk women. In total, there are 19 hospital units offering maternity services with over 99% of women birthing in one of these units under the care of a lead obstetrician (Cuidiu 2011, ESRI 2013, Ireland, Department of Health 2016,). Approximately one-third of these women have booked privately with a consultant obstetrician (Lutomski *et al*. 2014). Two co-located midwifery-led birth-centres are in operation in the north east of the country and some hospital units offer limited midwifery-led care including early transfer home schemes and DOMINO services (**Dom**iciliary **In O**ut). Early transfer home facilitates women who want to leave the hospital shortly after giving birth. Care is provided by a team of midwives up to ten days postnatally. The DOMINO service facilitates antenatal and postnatal care in the community with birth usually taking place in the hospital. A team of hospital-based midwives, assigned to the service, provide care. Two hospitals offer limited homebirth services and a total of 17 self-employed community midwives (SECMs) offer a homebirth service throughout Ireland. Consequently, only 0.2% of women birth at home with 0.6% birthing in the midwifery-led centres (ESRI 2013, Corcoran *et al*. 2016). Two Irish studies (Byrne *et al*. 2011, AIMS Ireland 2015) suggest that women want more choice, particularly midwifery-led birth-centres, but are constrained by the services on offer in their areas. Table 1.2 (adapted from information provided in The National Maternity Strategy, (Ireland, Department of Health 2016)) provides a summary of the types of maternity care services offered from each maternity unit and number of births in 2014.

1.5.2 The first Irish maternity strategy

The recent Irish Maternity Strategy (Ireland, Department of Health 2016), the first of its kind in Ireland, acknowledges the need for change but also highlights particular

pressures that the maternity services have been under in recent years. These include record high numbers of births, rising litigation and insurance costs, rising clinical interventions and infrastructural deficits. Combined with these factors are an increase in cases complicated by medical co-morbidities such as diabetes and obesity. Recruitment and retention of maternity staff remains an ongoing issue. While the numbers of midwives and obstetricians are rising, these remain below levels in other developed countries. The National Clinical Programme for Obstetrics and Gynaecology 2015 recommended that the number of consultant obstetricians be increased by approximately 100 new consultant posts. In terms of determining midwifery numbers required, a review has been undertaken (Birthrate Plus®) and the results should be available in the near future.

The strategy acknowledges that pregnancy and birth should be recognised as a normal physiological event for women. The facilitation of choice in maternity care services for women is to be prioritised through proposals such as fostering a culture of normality through suitable leadership and offering different levels of care depending on a woman's preferences, clinical needs and best practice. The strategy suggests three pathways of care: The first pathway, named 'supported care' recommends that normal-risk women be cared for by midwives with the input of other professions if necessary. They can choose to birth in an Alongside Birth Centre (Midwifery-led Unit) or in a Specialised Birth Centre (Hospital Unit with Obstetric-led services). A home birth service, integrated within the maternity network, will also be available for normal-risk women. The second pathway, named 'assisted care' is for medium-risk women who will be under the care of a named obstetrician and have midwifery input in a Specialised Birth Centre. This pathway will also be available for low-risk women who choose to have an obstetrician as their lead carer or desire a hospital birth that includes the option of epidural analgesia. The third pathway is named 'specialised care' and is for women who are deemed high-risk and in need of more complex care. The recommendation is that they birth in a Specialised Birth Centre. The strategy does not endorse free-standing birth centres (i.e., centres that are not co-located with an obstetric unit). Evaluation and monitoring of the 'Alongside' model is considered necessary before this model of care would be considered. Responsibility for the implementation of the strategy will mainly be with the new *National Women & Infants Health Programme* who will be required to submit an annual published report to the Minister for Health on the progress made.

Table 1.2: Overview of maternity units in Ireland						
Unit	**No of births**	**Obstetric-led service**	**Midwifery-led unit**	**DOMINO**	**Early Transfer Home**	**Homebirth**
Ireland East Hospital Group						
National Maternity Hospital	> 9000	✓		✓	✓	✓
St. Luke's Hospital Kilkenny	1500 - 2000	✓				
Midlands Regional Hospital Mullingar	2000 - 3000	✓				
Wexford General Hospital	1500 - 2000	✓		✓		
Dublin Midlands Hospital Group						
Coombe Women's & Infants University Hospital	8000 - 9000	✓		✓	✓	
Midland Regional Hospital Portlaoise	1500 - 2000	✓				
RCSI Hospital Group						
Rotunda Hospital	8000 - 9000	✓		✓	✓	
Cavan General Hospital	1500 - 2000	✓	✓			
Our Lady of Lourdes Hospital Drogheda	3000 - 4000	✓	✓			
South/South West Hospital Group						
Cork University Maternity Hospital	8000 - 9000	✓		✓	✓	
Kerry General Hospital	< 1500	✓			✓	
University Hospital Waterford	2000 - 3000	✓		✓		✓
University of Limerick Hospital Group						
University Maternity Hospital Limerick	4000- 5000	✓				
Saolta University Hospital Group						
University Hospital Galway	2000 - 3000	✓			✓	
Letterkenny General Hospital	1500 - 2000	✓				
Mayo General Hospital	1500 - 2000	✓				
Portiuncula Hospital General & Maternity Ballinasloe	1500 - 2000	✓				
Sligo General Hospital	< 1500	✓				

Table 1.3: Overview of characteristics of maternity services in five high-income countries	
Country	**Key characteristics of maternity services**
Ireland	• Mainly obstetrician-led and hospital-based care: over 99% hospital birth[1] • Limited homebirth service: 0.2% of births take place at home[1] • Limited midwifery-led care – 0.6% of births take place in midwifery-led units[1] • Caesarean section rate 2014: 29.5%[2] • Perinatal mortality rate 2014: 6.2 per 1,000 total births (from 24 weeks gestation or >500g to 28 days postnatal)[2] • Maternal mortality rate 2011-2013: 10.4 per 100,000 maternities[1]
England	• Mainly obstetrician-led and hospital-based care: 87% hospital birth[3] • Alongside midwifery-led unit: 9% of births[3] • Freestanding midwifery-led unit: 2% of births[3] • Community midwifery universally available for homebirth: 2% homebirths[3] • Caesarean section rate 2014/15: 26.5%[4] • Perinatal mortality rate 2014: 5.92 per 1,000 total births (from 22 weeks gestation or >400g to 28 days postnatal)[5] • Maternal mortality rate 2012-2014: 9.2 per 100,000 maternities[6]
Netherlands	• 72% hospital birth (secondary or tertiary level)[7] • 16% homebirth[7] • 12% in midwifery-led birth centres or polyclinics[7] • Caesarean section rate 2014: 16.4%[7] Dutch maternity care is based on a careful demarcation between 'physiological' and 'pathological' pregnancy and birth, with a rational and safe division of labour among primary and specialist care. At home, in birth centres, or in a polyclinic setting, the midwife is the professional in charge. The rate of births at home is a distinct feature of the autonomy of Dutch midwives (De Vries *et al*. 2013) • Perinatal mortality rate 2015: 7.8 per 1,000 total births (from 22 weeks gestation to 28 days postnatal)[8] • Maternal mortality rate: unable to obtain accurate figures
Australia	• Mainly obstetrician-led and hospital-based, but strategic commitment to shift to primary care[9] • 98% women give birth in hospital[9] • Midwifery-led birth centres: 1.7% of births[9] • Homebirth under the care of a midwife: 0.3% of births[9] • Caesarean section rate 2014: 33%[9] • Perinatal mortality rate 2014: 9.6 per 1,000 total births (from 20 weeks gestation or >400 g)[9] • Maternal mortality rate 2008-2012: 7.1 per 100,000 maternities (up to 42 days postnatal)[10]
New Zealand	• Lead Maternity Carer (LMC) system in place since 1991. LMC is either an independent midwife, obstetrician or general practitioner obstetrician[11] • 93.4% of LMCs are midwives; 0.6% are GPs; 6.0% are obstetricians[11] • 14.4% of women have an unknown or no LMC[11] • 87% of births occurred in hospitals (secondary or tertiary level); 9.6% in a primary unit (birth centre); and 3.4% at home[11] • Caesarean section rate 2014: 25.9%[11] • Perinatal mortality rate 2014: 11.2 per 1,000 total births (from 20 weeks gestation)[12] • Maternal mortality rate 2012-2014: 14.9 per 100,000 maternities (direct and indirect)[12]

Please note: maternal and perinatal mortality figures should be read in recognition that differences may exist in precise definition of the indictor
[1] National Maternity strategy 2016 – 2026 (Ireland, Department of Health 2016)
[2] Perinatal Statistics Report, 2014 (Healthcare Pricing Office 2016)
[3] BETTER BIRTHS: Improving outcomes of maternity services in England (NHS 2016)
[4]NHS Maternity [6] Statistics – England, 2014-15 (HSCIC 2015)
[5]MBRRACE-UK Perinatal Mortality Surveillance Report 2014 (MBRRACE-UK 2016)
[6] Saving Lives, Improving Mothers' Care, Surveillance of maternal deaths in the UK 2012–14 (MBRRACE 2016)
[7] Documentatierapport Perinatale Registratie Nederland (Centraal Bureau voor de Statistiek 2015)
[8]Summary Yearbook Care, perinatal statistics 2015 (Perined 2015)
[9] Australia's Mothers and Babies 2014 (AIWH 2016)
[10]Maternal deaths in Australia 2008–2012 (AIWH 2015)
[11] Report on Maternity 2014 (New Zealand, Minister of Health 2015)
[12]Tenth Annual Report of the Perinatal and Maternal Mortality Review Committee Reporting Mortality 2014 (Health Quality & Safety Commission New Zealand, 2016)

Table 1.3 provides an overview of key characteristics of maternity services from five high-income countries, including Ireland. Demonstrated in the table is Ireland's stronger profile of consultant-led and hospital-led care and extremely low homebirth rates. Midwifery-led care, as seen below, plays a larger role in maternity care in both the Netherlands and New Zealand while the homebirth rate in the Netherlands far exceeds the other countries. Caesarean section rates in Ireland are amongst the highest of the countries presented with the rate in the Netherlands significantly lower. The next section of the thesis provides a discussion on the interventions that are common during labour and birth such as caesarean section.

1.6 Rationale for thesis

The earlier section of this chapter explores the concept of risk and how risk has shaped both perceptions of pregnancy and birth and perceptions of maternity care. This section looks at risk as it pertains to this thesis. Risk appears to be playing a significant part in shaping the current maternity services both in Ireland and abroad. Women, healthcare professionals and clinical governance bodies appear to be affected and constrained by it. The result is that choice for women is confined, healthcare professionals are working defensively and the rates of intervention continue to rise. This thesis looks specifically at midwives' and obstetricians' perceptions or risk in relation to care practices for low-risk women and normal birth. This area was chosen as research shows that low-risk women are more likely to have a spontaneous vaginal birth and less intervention when they birth at a midwifery-led unit rather than an obstetric-led unit, with similar perinatal outcomes (Brocklehurst *et al*. 2011). The research study on which this thesis is based aimed to gain a deeper understanding of how risk perceptions of midwives and

obstetricians may be contributing to unnecessary interventions for low-risk women (the aims and objectives of the thesis are presented below in section 1.7).

Caesarean section rates are at an all-time high, exceeding 30% in many high-income countries, with the rate in Ireland just under 30% (OECD 2015, Healthcare Pricing Office 2016). This is despite recommendations from WHO (2015) that rates exceeding 10-15% are not associated with a reduction in maternal and perinatal infant mortality. A literature review, performed as part of a Cochrane review investigating caesarean section for non-medical reasons at term, highlights how although the risks associated with major surgery such as caesarean section have reduced due to evolving techniques there are still many morbidities associated with this method of delivery (Lavender *et al*. 2012). These include increased maternal risks associated with surgery, anaesthesia, transfusion and pulmonary embolism. Caesarean section influences future pregnancies in terms of risk of scar rupture in subsequent labours and has also been associated with emotional difficulties including postpartum depression. For babies, risks include higher incidence of admission to the neonatal unit, respiratory problems, laceration and iatrogenic prematurity.

While caesarean section rates may be on the rise in many countries, the rate of operative delivery has also increased (HSCIC 2015, Healthcare Pricing Office 2016). Only 42% of women in England had a normal birth (as defined in section 1.3.3) in 2010/11, a significant drop from the 1990's (Dodwell 2012). There are no comparable Irish figures but trends show a decrease in spontaneous vaginal delivery and an increase in instrumental deliveries between 2005 and 2014 (Healthcare Pricing Office 2016). Maternal morbidity related to instrumental delivery includes increased perineal trauma with associated co-morbidities and negative psychological effects associated with severe perineal trauma. For the fetus, morbidity can include fetal facial and scalp injuries and cephalhaematoma, amongst others (O'Mahony *et al*. 2010). Apart from mode of delivery other interventions can contribute to morbidity for woman and babies. Cardiotocography (CTG) of the fetal heart during labour is associated with an increase in caesarean section and instrumental vaginal births with no evidence to support the use of an admission CTG for low-risk women in labour (Devane *et al*. 2017). An admission CTG may increase a woman's chance of undergoing a caesarean section by 20% but despite this the practice still continues in many maternity units (Devane *et al*. 2017). Other interventions such as amniotomy and epidural are also contributing to the decline of spontaneous delivery. A Cochrane review comparing women who had placebo or

opioid analgesia with women who received an epidural found that epidural is an effective method of pharmacological pain relief but is associated with an increase in adverse effects (Jones *et al*. 2012). Overall, women are more likely to have an instrumental vaginal birth as a result of receiving epidural. Women are also more likely to have an instrumental vaginal delivery or caesarean section for fetal distress if they have an epidural, although there was no difference in rates of caesarean section between the two groups,

There are calls for a change in the way we approach risk and risk assessment in maternity care (Coxon *et al*. 2015). While cultivating a more holistic approach that supports social and cultural preferences may seem obvious, this does not necessarily result in less intervention for women (MacKenzie Bryers and van Teijlingen 2010). Downe (2010) suggests a risk reductionist approach such as salutogenesis when designing and auditing maternity services. This would incorporate a focus on factors that promote positive health and wellbeing (salutogenesis) rather than those that prevent adverse health. Salutogenic-focussed outcomes for birth include aspects such as maternal satisfaction with care, caregiver satisfaction, maternal parenting confidence and spontaneous rupture of membranes rather than amniotomy (Smith *et al*. 2014). Downe (2010) believes this approach could make a contribution to tackling the high levels of intervention that appear to be elusive at present. Skinner and Maude (2016) argue that an acceptance of uncertainty in birth may constitute a new construction of risk, moving away from blame towards the possibility of forgiveness and acceptance.

Considering the status of the maternity services it is essential that the topic of risk is further researched to develop understanding of the most appropriate ways of facilitating maternity care. Coxon *et al*. (2015) recently called for further research on risk in relation to maternity care. In view of this and due to a dearth of inquiry on this topic in the context of Irish maternity care, this research and thesis are important and timely.

1.7 Aims and objectives of thesis

1.7.1 Aims of thesis

This thesis aims to gain a deeper understanding of how midwives and obstetricians frame labour and birth in terms of risk in regard to low-risk women and normal birth. Aspects explored include what factors impact their perceptions of risk and how this in turn affects their practice in relation to low-risk women and normal childbirth. This thesis focusses on perceptions of labour and birth for women with healthy pregnancies,

considered low-risk or normal risk, eliminating any emphasis on risk perceptions regarding pre-existing obstetric, surgical or medical complications.

1.7.2 Objectives of thesis

- To systematically review the existing literature on midwives' and obstetricians' perceptions of risk in relation to low-risk women and normal birth in an international context.
- To understand what contributes to midwives and obstetricians feeling safe or unsafe when facilitating birth for women.
- To gain a deeper insight into the conflicts that exist for midwives and obstetricians in terms of working both as individual practitioners and within an institution.
- To consider midwives' and obstetricians' opinions on how risk affects women's experiences of their maternity care.
- To assess the implications of this study on maternity practice and policy.

This thesis presents key findings and draws conclusions from research undertaken to explore midwives' and obstetricians' attitudes to risk regarding care practices for low-risk women and normal childbirth in Ireland. It can contribute to identifying recommendations for changes in maternity practice and policy and in recommending areas for future research.

1.8 The research and the researcher

In my clinical work as a midwife over the last 10 years (including four years as a student midwife) I have been fortunate to work alongside women as they labour and birth their babies. I have had the advantage of observing how women interact with the maternity services throughout the journey of pregnancy and birth. While most outcomes are pervaded with joy it has also persistently struck me that the experience is often imbued with a sense of risk that detracts from the event. While I have seen women empowered by giving birth I also feel there are many missed opportunities to support women in having a positive experience in which they strongly believe in their ability to birth and are the chief decision-makers in their care. I believe poorer experiences of birthing women are a result of an increasing sense of risk surrounding birth resulting in often unnecessary interventions such as the use of Cardiotocograph (CTG) for low-risk birthing women. As a newly-qualified midwife in 2010 I worked in an obstetric-led

unit. I noticed an abundance of 'corridor speak' about risk. The messages I heard were along the following lines: protect your midwifery registration, take no chances, engage in detailed surveillance so nothing is missed, you as a midwife will always be liable so follow procedure rigidly despite women's beliefs about birth. Women with detailed birth plans that strove for a physiological birth were implicitly and explicitly cautioned about the likelihood of needing intervention. The mention of homebirth instantly brought forward claims of irresponsibility towards women and midwives choosing to engage in this. The language of risk was everywhere – midwives, obstetricians and women were all subject to it.

While my professional background has until recently been solely in obstetric-led settings I also became involved in homebirth maternity care in 2016. I work as a 'second' midwife who assists the primary midwife during labour and birth for low-risk women and I have attended a small number of homebirths to-date. I also have a personal experience of homebirth under the care of a midwife. It was the contrast between what I perceived to be woman-centred care at homebirths and risk-centred care in an obstetric-led unit that sparked my interest in the subject matter of this PhD. I wanted to understand better what was contributing to this contrast and the first year of my PhD saw me submerged in the literature of risk and maternity care. I initially considered researching midwives' and obstetricians' perceptions of risk related to homebirth but I came to realise that I needed to take a broader view of the maternity services to understand how perceptions of risk affect care practices for low-risk birthing women and normal birth.

1.9 Research design, methodology and methods for primary study

This section describes and provides a rationale for the research design including choice of methodology and methods for the primary study. It provides an account of the conduct of the study through the examination of the trustworthiness and ethical dimensions of the research, including recruitment of participants and approaches to data gathering and analysis. Throughout this section I examine the dilemmas faced as a researcher at each step of the process and explain the rationale for the final decisions made. Although Papers 3 & 4 provide a description of the methodology used for the primary research I considered a more detailed description of methodology was important to provide a reflexive account of research design, methodology and methods.

1.9.1 Research Design and Methodology

> A research design describes a flexible set of guidelines that connect theoretical paradigms, first to strategies of inquiry and second to methods for collecting empirical material.
>
> (Denzin and Lincoln 2011, p.14)

Epistemology, methodology and methods are intricately connected and research must demonstrate alignment of these within its design (Trainor and Graue 2013, Carter and Little 2007). This section discusses the research design employed for this study, incorporating a discussion on the underlying epistemology influencing the research and consequently the strategies and methodology utilised.

This study draws on the theoretical paradigm of social constructivism, reflecting the set of beliefs to which I as the researcher subscribe. This approach is useful as it argues that situations are not inevitable but are based on jointly constructed understandings, created through social interaction and influenced by factors including culture and social context (Burr 2015). Paradigms are defined as human constructions of 'a basic set of beliefs that guide actions' and are demonstrated within research by how the researcher responds to ontology, epistemology and methodology (Denzin and Lincoln 2011, Guba 1990).

Guba (1990) identifies four major paradigms that influence research: traditional positivism that has dominated inquiry for the last 400 years and three paradigms that have emerged to contest it; namely, post-positivism, critical theory and constructivism. Positivism contends that there is a reality that can be apprehended through objective means of capturing and understanding it and lends itself to quantitative methods of inquiry. Post-positivism argues that reality can never be fully apprehended, only estimated, and may incorporate qualitative methods but strives towards objective means of inquiry. Critical theory proposes that reality can only be studied through a set of values, lending itself to methodologies such as feminism and neo-Marxism and qualitative forms of inquiry. Constructivism, the paradigm reflected in this study, is based on the belief that multiple interpretations can be made of any inquiry and hence lends itself to qualitative methods. This study takes a social constructionism standpoint; it makes no ontological claims but takes a position of subtle-realism (Hammersley 1992). This form of contextual constructionism acknowledges the existence of an objective reality while also recognising the influence of both research participants and the researcher on shaping the nature of knowledge. Andrews (2012) puts forward the

argument that taking a totally relativist position results in knowledge that does not necessarily contribute to knowledge development in a meaningful way because all assertions can claim legitimacy. In terms of this study, the researcher acknowledges the objective reality that low-risk women are subject to over-intervention but recognises that perceptions of this phenomenon are socially constructed.

Consequently, the research methodology and methods for this study are developed within a qualitative framework, reflecting my epistemological standpoint. Qualitative research places emphasis on process and meaning and focuses on the socially-constructed nature of reality, the context in which the research takes place and the subjective relationship between the research and the researcher (Denzin and Lincoln 2011). Context is important in terms of situating the research problem within a wider social and historical background (Dey 2003). Thorne (2011) stresses the importance of recognising the link between subjective experience of complex health processes and fundamentals underpinning competent care. Due to the high levels of often unnecessary intervention for low-risk women giving birth, building up an in-depth understanding and generating rich data on factors and processes which influence midwives' and obstetricians' perceptions of risk regarding birth was considered essential in recognising this link. As maternity care in Ireland is provided through a multitude of models, (as outlined above in section 1.5.1) each having different philosophical backgrounds, qualitative inquiry was deemed the most suitable to investigate the context of this. While a review of the literature (Healy *et al*. 2016) revealed more qualitative than quantitative studies there was little research that could be applied to the unique setting and context of the Irish maternity services where the majority of women are under the care of an obstetrician rather than a midwife.

Although a qualitative framework finally guided this study, a quantitative design was considered in the early stages but was deemed unsuitable. Quantitative research places emphasis on measuring and analysing causal relationships between variables but does not focus on process (Denzin and Lincoln 2011), an aspect I felt could not be neglected in attempting to satisfy the research aims and objectives. It would have involved hypothesis testing, subscribing to a positivist paradigm and would not have provided the rich data necessary to make a significant contribution to understanding the individual nuances of how midwives' and obstetricians' perceptions of risk may be contributing to often-unnecessary intervention. Prior to finalising the research question, I forged links with a Professor of Midwifery in a Canadian university with a view to possible

collaboration. Her research focussed on creating and refining a tool to assess healthcare professionals' attitudes to homebirth which, due to the nature of her topic, also focussed on attitudes to risk relating to birth for women with healthy pregnancies. While the results from her research informed my thinking, it was decided, in conjunction with my supervisors, that a qualitative study would provide a more suitable framework for my research area for the reasons outlined above.

The research design used for this study was pragmatic in nature, drawing on a variety of methodologies and methods deemed the most suitable to address the research question while remaining true to the theory of social constructionism. I initially intended to use a specific methodology but as I further investigated methodologies, I realised that no specific one provided a 'completely' adequate fit for my research aims. The methodology for the study drew on Interpretive Description (ID) (Thorne et al., 1997, Thorne et al., 2004) and used the principles of Grounded Theory to inform the implementation of certain methods in the process of data collection and analysis.

ID is a methodology that extends beyond description into the domain of interpretive explanation, seeking to discover associations, relationships and patterns within and between the described phenomena (Thorne 2016). It acknowledges that human experience involves multiple realities and attends to the importance of context on experiences and expressions. This methodology enforces the suitability of a pluralistic approach to knowledge development in qualitative inquiry, particularly for the nursing profession who have a unique set of research requirements often focusing on complex experiential problems, not always best served by traditional approaches. While Thorne does not make specific reference to midwives one purpose of the study was to inform the improvement of maternity clinical practice. ID was therefore judged to be a suitable methodology as it is designed to inform practice.

This study incorporated a theoretical fore-structure, as proposed in ID, which foregrounded the study within existing theory (Thorne 2016). This framework was composed of a systematic literature review (Healy et al 2016b) and an examination of the implications of my theoretical, disciplinary and personal perspectives upon my thinking and decision-making through a reflective journal.

The intention of this study was not to develop new theory and hence a pure Grounded Theory (GT) approach was not adhered to but the principles of Grounded Theory guided aspects of implementation of the qualitative study. This is evident in that the

data were grounded in context, data saturation was achieved and there was an ongoing reflexive approach to data analysis. The methods section provides further details of how the principles of GT informed the conduct of this study.

There is growing consensus that combining methodologies rather than resolutely subscribing to one absolute approach can enhance knowledge development. This is providing that the researcher can justify decisions made when selecting methods from different methodologies while maintaining standards of validity and rigor (Carter and Little 2007, Whittemore *et al*. 2001). Every effort has been made to continually assess validity and rigor throughout the research process and these are outlined in the following methods section.

1.9.2 Methods

Although methods are universal they differ when employed in different paradigms (Trainor and Graue 2013) and a justification for choice of methods used and how they are applied in this study is described below.

1.9.2.1 Sampling

A purposive sampling technique was applied to recruit participants to this study. This non-probability sampling technique enables the researcher's knowledge of the population and its characteristics to be used to recruit cases for inclusion in the sample (LoBiondo-Wood and Haber 2006). As such, my knowledge of the maternity services was used in the selection of participants considered typical of the desired population. Purposive sampling differs from convenience sampling in that it allows the researcher to deliberately include outliers or deviant cases in the sample to highlight juxtapositions within the data, if deemed important (Barbour 2001, Gray 2013). It also allows for purposefully choosing information-rich cases related to the study topic (Gray 2013, Hennink *et al*. 2010). Maximum variation sampling was used to identify sites for recruitment of participants to allow for different perspectives (Creswell 2013) in terms of context of the phenomena under study (see Table 4.2 for variety of recruitment settings). Typical case sampling was conducted within units and the community to achieve representativeness of healthcare professionals who facilitate most care for low-risk birthing women. Both obstetricians and midwives were included in this sample as in Ireland both these professions organise and provide direct care to low-risk birthing women and are considered the two professions that could provide in-depth data on the phenomena being investigated. Recruitment of participants from a variety of grades

within these professions was deemed important as the issues of teamwork and professional accountability were considered central to comprehensively investigating the topic. As a researcher, I was aware that purposive sampling could give rise to bias in sample selection (Gray 2014). To counteract this, I continuously monitored how many midwives and obstetricians were included in the sample and within this how many of each grade of profession. I attempted to include a similar number in each category and while the result included more midwives than obstetricians I felt there was good representation from each profession and grade of profession (see Table 4.2). I also attempted to have similar numbers of participants from each setting.

Sample size was estimated prior to recruitment (this was used as a guide for planning recruitment but ultimately data saturation guided sampling and recruitment as outlined in section 1.9.2.3) and was based on study aim, study design, sample specificity and quality of data while also drawing on experience and background of the researcher (Malterud *et al*. 2015, Morse 2000). As the aim of this study had the potential to generate data that was broad in scope, a larger sample may have been appropriate. However, this approach was counteracted by the requirement of a very specific sample which could provide in-depth data on the topic under investigation while also providing some variation, drawing on the mix of professionals, level of qualification and experience and variety of settings eventually included in the study sample. The study was not longitudinal in nature, which allowed more flexibility in recruiting a larger sample size without being overwhelmed by data. As a developing researcher, my initial thinking was to lean towards recruitment of a larger sample size to ensure I gathered sufficient quality data. However, my background as a midwife meant I had experience conducting informal interviews with women in the clinical setting, enabling me to reduce the potential size of the sample. Furthermore, I also piloted the interview schedule on three midwives, increasing my confidence and skill as a social research interviewer. Taking the above points into consideration and in discussions with my supervisors, we agreed that a sample of 20-25 was likely to be appropriate to provide an in-depth exploration of the phenomena under study but noted that data saturation would ultimately guide sample size (see below for more detail).

Inclusion and exclusion criteria were devised based on the type of data I needed to gather to address my research question and drawing on the review of the literature prior to conducting the research (Hennink *et al*. 2010)(see Table 4.3). Midwives and obstetricians are specifically identified in the research question, as these are the

professionals directly involved in facilitating care for birthing women. Public health nurses and General Practitioners were initially considered for inclusion but were excluded early in the process, as they do not work directly in a birth setting in Ireland. Birth settings were identified as the type of research sites for data collection. Participants with less than six months' experience in both a birth environment and in their current role were excluded as it was judged they could not provide the depth and richness of data that is required for a qualitative study of this nature due to their limited experience of such clinical encounters. Student midwives were initially considered as they could provide a 'fresh eyes' perspective but eventually excluded for similar reasons i.e., for the most part they had less than six months of consecutive experience in a birth environment and also they do not have the same responsibility for birth outcomes as their qualified counterparts. Obstetric Senior House Officers (SHOs) were exempt, as they do not have experience of actively participating in decision-making for birthing women. Senior midwifery management, not directly working with birthing women, were included as this grade of professional has similar input into clinical governance as consultant obstetricians.

1.9.2.2 Recruitment

Recruitment took place in three large maternity hospital units in the Republic of Ireland and within the area of self-employed community midwifery. The units all provided similar models of obstetric-led care but varied greatly in their provision of midwifery-led care. One unit had an alongside midwifery-led unit which was staffed solely by midwives. Another unit provided a moderate level of midwifery-led care while the third unit had minimal midwifery-led services. I do not describe the units in detail as this may contribute to the identification of participants due to the limited number of maternity units and self-employed community midwives in the Republic of Ireland.

I used a variety of strategies to recruit participants. Initially I approached senior personnel within the maternity units (directors of midwifery and obstetric clinical leads) to gain approval for recruitment in their areas. An email was sent directly to them to request permission to display recruitment posters in the unit and to organise small group meetings and one-to-one contact with potential participants. The posters briefly stated the research objective and the type of participants the study sought to recruit. They also provided my email, 'phone and text contact details for those interested in participation. The posters resulted in the recruitment of one person directly to the study. Subsequently, many participants noted to me they had seen the posters, which had

alerted them to the study aims prior to recruitment. The organised small group meetings took place in the labour ward setting of each unit and staff were encouraged to attend by midwifery managers on duty. In the midwifery-led unit, these meetings were on a one-to-one basis as the availability of staff was not sufficient for a group meeting. At this meeting, I provided attendees with an information sheet explaining what the research entailed, what would be expected of participants and the consequences of participation in the research. Numbers attending these meetings was not recorded but it is estimated at approximately 30. This was the most successful strategy for recruiting staff midwives and registrar obstetricians, many of whom contacted me directly after these meetings expressing interest in participating in the research. All staff midwives (n=8) and two registrar obstetricians were recruited using this strategy.

Clinical midwifery managers and consultant obstetricians did not, for the most part, attend any of these meetings so recruitment of these participants was by email. This strategy entailed sending an invitation either directly to their email address or to their secretary if the direct email address was not available to me. The information sheet used in the small group meetings was attached to the email. Six consultant obstetricians and five registrar obstetricians were emailed and five consultant obstetricians were contacted by letter via their secretary. Eight midwifery managers in total were emailed. The decision to contact certain participants was based on the availability of their email details or the contact details for their secretaries on public websites. An email was sent to all for whom an email or postal address could be obtained. This was a very successful strategy for these groups. All participants in this category, with one exception, were recruited using this approach. In relation to the exception, one consultant obstetrician was recruited through the poster strategy. Community midwives were also recruited directly by email. Their details were available on a community midwifery website and a sample of potential participants working in the geographical areas where ethical approval was granted were contacted (n=4). Two invitees responded and both agreed to participate in the research.

Negotiating access to the field was more difficult than I anticipated. While all three units welcomed the research, it was difficult to schedule the interviews due to time constraints on participants connected to pressures of work. Most participants were not willing to be interviewed in their free time so I often had to wait for a considerable length of time until they were free. Also noted were the interruptions to interviews by other staff members as participants, particularly midwifery managers, were extremely

busy. I had anticipated that gaining initial access to the units would be difficult but my research area appeared to spark interest and permission to proceed with it in the hospital setting was granted without difficulty. While I believed that recruiting midwives to the study would not present difficulties due to my professional background as a midwife, I was surprised by the willingness of obstetricians to participate in the research. When I contacted them, they showed a similar level of interest and willingness to take part.

1.9.2.3 Participants

From the above approaches, 25 participants were recruited for interviews. Participant categories are limited to four groups, as outlined in Table 4.2, to protect participant identity. For this reason, midwifery mangers from both obstetric-led units and midwifery-led units are in the same group. The 0.5 figure accounts for a participant who works in both an obstetric-led unit and a midwifery-led model of care. Interviews were conducted in tandem with preliminary analysis of interview data and on-going recruitment of participants. This involved the continued reviewing of the preliminary analysis of the interviews, as I conducted them, to identify when I was approaching data saturation i.e. when newly gathered data is continually compared to previously collected data, a process associated with grounded theory (Bowen 2008).

Recruitment and interviewing continued until I was satisfied that data saturation was achieved. Data saturation, the point at which information collected begins to be repetitive (Hennink *et al*. 2010), was reached at 25 participants in this study. Attention was paid to data saturation in relation to information collected in each unit and from each profession as recommended by Hennink *et al*. (2010). The issue of data saturation was discussed with my supervisors throughout the fieldwork stage to satisfy that it was reached.

1.9.3 Data collection process

The approach to and methods of data collection are reported below. This includes a rationale for the methods, limitations and strengths of these and the challenges encountered during data collection.

1.9.3.1 Semi-structured interviews

Data were collected using individual, face-to-face semi-structured interviews. This was the preferred method of data collection as semi-structured interviews create an opportunity for a detailed investigation of an individual's perspective and can aid understanding of the personal context in which the research phenomena are situated

(Ritchie *et al*. 2013). This study explored attitudes to risk and so individual interviews were chosen as the most appropriate research technique to collect data. Semi-structured interviews were deemed suitable in providing an in-depth conversation, led by the researcher, working through the set of topics that need to be covered but allowing for considerable variation between participants to produce the rich data required to answer the research question. Yin (2011) likens the interview to a conversation that leads to a social relationship of sorts between researcher and participant and presents an opportunity for two-way interaction. Face-to-face interviews were considered important to enable detection, through verbal or body language cues, of underlying problems such as participants misunderstanding the question or giving flippant or misleading answers (Gray 2014). Thus, this approach supports the generation of high quality and reliable data in the data collection process.

As my interviewing skills improved, I understood how the interview could be more like a conversation, that questions did not need to be asked in a list-like fashion but could be woven into the conversation. In my opinion, this contributed to a more satisfactory and creative relationship with the participant. The variation between interviews is in line with the social constructionist theory where participants' attitudes are not considered pre-determined but are revealed through the emergent conversation (Flynn 2005). Interviews within this paradigm are viewed as socially-constructed events and the focus is on how the accounts are co-constructed by both interviewer and interviewee (Roulston 2013). I aimed to build rapport with the participants to ensure they felt relaxed and confident in divulging information to me. I conveyed issues around confidentiality, asked permission to record the interview and provided an overview of the subjects to be covered in interview. I also indicated that interviews would last approximately one hour.

While interviews were chosen as the most appropriate tool for collecting data in this study I acknowledge their limitations. I was aware of the need to be non-directive, neutral in my body language and expressions whilst maintaining rapport with participants and refraining from over-speaking, thus allowing the participant to talk (Yin 2011). I was aware that my experience of conducting research interviews was limited, although I had extensive experience of interviewing within my role as a midwife. To counteract this, I conducted exploratory pilot interviews as detailed below and my two supervisors critiqued my interviewing technique in the initial stages of data collection.

Although focus groups have been identified as useful when trying to understand differences in perspectives between groups or categories of people as participants generate data through interaction with each other (Krueger and Casey 2009), focus group interviewing was eventually excluded as a method of data collection from this study due to the complex nature of the phenomenon under investigation i.e. perception of risk. I believed that there needed be opportunities for clarification and detailed understanding not available in a group setting. There was also the worry that within this setting, disclosing real fears in relation to professional practice or comparing oneself with other professionals may have been inhibited. The practical issue of organising groups in a busy hospital environment was also considered not feasible in practice.

Interviews were arranged at the convenience of the participants. All but two of the 25 interviews were carried out in the hospital or midwifery-led unit. Community midwives (n=2) chose to be interviewed at their home. Interviews lasted from 30 to 70 minutes. All interviews were audio recorded. Written informed consent was obtained from all participants prior to the interviews.

1.9.3.2 Interview guide

An interview guide comprising a set of open questions guided the discussion (Table 4.4). In keeping with the theory of social constructivism, the interview guide was loosely structured. This was to enable the exploration of how the individual is impacted by the social structure in which they work and live (Flynn 2005). The interview schedule was designed to ask questions that implicitly rather than explicitly asked about risk perceptions. This was to encourage more in-depth investigation of the phenomenon and to avoid leading the participants.

The interview guide was based on information gathered through the extensive and systematic review of the literature as presented in Chapter 2. The theoretical fore-structure, as outlined in section 1.9.1, contributed to the trustworthiness of the study by ensuring personal bias did not unintentionally influence the interview questions. The literature review revealed that midwives have moved away from their philosophical belief that birth is a normal life event to an assumption that birth is abnormal and laden with risk. Questions in the interview schedule sought to understand this phenomenon in more detail and to investigate if midwives and obstetricians had similar attitudes to the importance of achieving normal birth. Actual questions, including probing and prompting, were tailored to each profession and grade of profession. They were

reframed for individual interviews with variations most notably between those practising clinically and those in managerial positions and between those working in a structured unit and those in the community. As data collection progressed, I realised that some participants needed more explicit prompts regarding risk perceptions and this was factored into those interviews. I saw improvement in my interviewing skills as data collection progressed. It was evident that some participants were easier to interview than others and initially I tended to rush the awkward interviews. I did learn to wait for answers from the quieter participants despite feeling somewhat uncomfortable. I also learned how to use prompts to elicit improved information from all participants and how to steer them back if they had veered 'off topic'. Examples of prompts used were 'can you give me an example of this in your practice?' or 'can you elaborate more on this?'

From the initial design of the interview schedule to the conduct of the interviews themselves I endeavoured to maintain the trustworthiness of the study by reflecting on reliability and objectivity (trustworthiness is discussed in section 1.9.5.2). I was aware that I was interviewing different grades of professionals and that this was a potential source for bias in that I may have conducted myself in a different manner when interviewing participants of my own grade and profession compared with interviewing participants in a more senior position to myself. To counteract this, I endeavoured to act similarly in each interview, being aware of my tone of conversation, degree of friendliness and manner of dress. In terms of the research questions, I realised that questions invariably reflect the views of the researcher but that an attempt must be made to be objective (Gray 2014). Questions were deliberately phrased to minimise bias, were constructed to be clear and concise and were derived from a thorough review of the literature rather than being researcher-led. Questions were devised in conjunction with my research supervisors, neither of whom are midwives, which contributed to reflexivity by identifying potential professional bias. The sequence of the questions was also considered in the attempt to reduce the introduction of bias.

The interview guide was piloted with two clinical-based midwives and one midwifery educator prior to the main study. This provided an opportunity to reword questions where meaning was not clear and to ascertain if implicit questioning was gathering quality data. For example, the word 'safety' was added to question three as participants in the pilot study found the term 'risk' too vague and were not sure how to answer the question. These interviews were not included in the final sample as the participants were informed that they were for exploratory purposes only and were asked to comment on

my interview technique as well as the format and content of the questions. I used these interviews to hone my skills as a qualitative interviewer and test the questions in the interview guide. Through this exploratory work I realised that when a participant asked for clarification I rephrased questions that may have led the participant. Going forward I was therefore aware of this and attempted to ensure that I did not do this when interviewing participants for the main study. Overall, only minor changes were made to the questions after piloting the interview schedule with positive feedback given in relation to my interviewing skills. No obstetrician was piloted, as I believed that obstetricians may have been difficult to recruit to the study and I did not want to forego an opportunity to include such an interview in the main study. As it turned out this was not the case as evident from the recruitment of participants.

1.9.3.3 Transcribing

All but two of the audio-recorded interviews were transcribed verbatim by the researcher. This was performed using 'Dragon' speech recognition software, which is 'trained' to recognise the researcher's voice. A first draft was created in this manner after which it was necessary to listen to the audio recording a second time to revise text that was interpreted incorrectly by the software. Due to time constraints, a professional transcription firm transcribed two audio recordings. While performing the transcription myself was extremely time-consuming it ensured that I was immersed in the data from an early stage. Anonymity for participants was maintained by removing any references that might compromise confidentiality in the transcripts. Each participant was given a code rather than a pseudonym. This reflected what model of care they worked in and whether they were a midwife or obstetrician.

1.9.3.4 Field notes and reflective diary

Field notes were taken directly after each interview. They described the interview setting and context and the general tone of the interview. They reflected on the degree of information supplied by the participants and whether this information was easily imparted or whether considerable prompting was needed to elicit the conversation. Noted in these field notes is my surprise that obstetricians in general were easier to interview than midwives. My impression was that they seemed to have given some thought to this topic in advance and were more informed about current research and hence more prepared to engage with my research. Both community midwives also appeared to be well-informed of current research and interspersed this in their conversation. In contrast, I felt that midwives working in the units were not as familiar

with research and relied on institutional guidelines to inform their practice rather than information they had sought individually.

My field notes noted the main themes discussed in the interviews and what was discussed after the audio recording was stopped. This included further information on the topics already discussed. While this information was not coded it contributed to decision-making in relation to theme formation. In future, I would consider coding this information as it would add to the dependability of the study, as outlined in section 1.9.5.3. The field notes also provided details on how participants felt about engaging in the research, incorporating both positive and negative views. Most participants were positive about contributing to the research but one participant was very nervous that her contribution could be traced back to her. She requested to read her transcript, which had the effect of reassuring her, and she agreed to include it in the study. This highlighted to me the need to reassure participants of their anonymity again when the interview concluded and to be very specific about how this would be achieved.

The field notes also commented on the efficacy and logic of the questions asked i.e. did they elicit information that was relevant to the research question? Did participants understand what the question was asking? Were the questions appropriate to the grade and profession of the participant? Personal feelings, potential bias and insights were noted in a reflective diary to crosscheck with coded concepts at a later date. The reflective diary was commenced in the initial stages of the research and contributed to the theoretical fore-structure as outlined in section 1.9.1. I maintained a reflective diary throughout the research process enabling me to reflect on how I developed as a researcher and the impact of this on my decision-making, thought processes and abilities.

1.9.3.5 Data organisation

The software programme for qualitative data analysis, NVivo 11 (2015), was used to assist data analysis. This was not only used as a tool to aid in coding and analysing data but also as a database to store and manage all data collected. This included audio recordings of interviews, transcribed interviews, memos, transcribed field notes and characteristics of participants including demographic details, qualifications, experience and details of position including title and seniority. In keeping with requirements of the ethics committee, and in accordance with the Data Protection Act 1998, the data on NVivo were stored on a password protected computer. This ensured confidentiality of

data and met the requirements for ethical storage of data as required by the ethics committees.

1.9.4 Data analysis

Thematic analysis, a means of identifying, analysing and interpreting patterns of meaning in qualitative data (Braun *et al*. 2014), was chosen as the most appropriate method of data analysis. It is consistent with a constructionist paradigm and was deemed appropriate for its theoretical flexibility (Braun *et al*. 2014). For this study I felt it was particularly appropriate as it is considered a suitable method for health research, including studies of individuals perceptions and influencing factors that underpin a particular health phenomena (Braun *et al*. 2014). I considered both Braun and Clarke's (2013) six-step method for thematic analysis and Yin's (2011) five-step process for qualitative data analysis. Braun and Clarke's (2013) method provided easy to follow steps but in the end, I incorporated Yin's (2011) method, as I believe it added to my understanding of data analysis and the comprehensiveness of the data analysis process (Table 5.1). It also allowed me to build my skills in analysis in a very systematic manner. Yin's (2011) process made valuable contributions that were not as prominent in Braun and Clarke's (2013) process, particularly in stages 1 and 5. Stage 1 highlighted the need to be systematic in compiling a database and stage 5 clarified how interpretation can be brought to a higher conceptual level to capture the broader significance of the study.

I commenced analysis by compiling my database as reported above. Following this, interviews were listened to and transcripts read several times. As advised by Thorne *et al*. (1997), when using Interpretive Description as a methodology, I asked questions of the data at this stage such as 'What is happening here?' and wrote a synopsis of the main points and initial ideas arising in each interview. What emerged clearly at this stage is the pressure midwives and obstetricians are under to achieve 'safe' outcomes and how vulnerable many feel working in an environment where adverse outcomes and litigation are a constant threat. Themes were not considered at this stage but these initial notes were used at a later stage to verify emerging themes.

NVivo 11 was then used to code the interview data. This involved coding short segments of data, a method adapted from grounded theory (Strauss and Corbin 1998). I did not however code 'line by line' but coded ideas. Initially I tried 'line by line' coding but felt that ideas were lost in this method. Thorne *et al*. (2004) advise against excessive

coding as it detracts from an ability to see patterns, follow intuitions or retrace lines of logic between segments of data. At this stage of coding, I used very descriptive code names as advised by Yin (2011) (Level 1 coding). Following this, I assigned higher analytical codenames to the descriptive codes and started to gather together codes with similar meanings (Level 2 coding). From the detailed coding of these data and connections across the ideas/concepts coded, higher level analytical categories were developed. Higher analytical codes were subsequently synthesised to form over-arching themes. Examples of the levels of coding are presented in screenshots from NVivo 11 in Appendix B. 'Mind mapping' was used to connect higher analytical codes and categories, refine the themes and build up the theoretical understanding of the topic (see Figure 1.1 for an example of a mind map used for Paper 3). This technique also helped to assess if the themes worked together to form a coherent whole (Braun and Clarke 2006). These findings were then compared with the initial themes noted.

Drawing on a grounded theory approach, data collection and analysis were simultaneous, allowing one to inform the other, resulting in the construction of theory related to the phenomenon under study (Thornberg and Charmaz 2013). It also had the advantage of continuously prompting me to question my evolving themes. The benefit of this was particularly evident when I interviewed midwives working in midwifery-led care. I realised that while initially these midwives appeared to be the deviant cases, when I dug deeper it appeared that they often felt similar pressure to achieve so-called 'safe' outcomes. Analysis was an iterative process that required me to constantly return to the data to ask questions of it, aiding in the refinement and verification of themes. This process was performed in conjunction with my supervisors at all stages.

For me, data analysis was the most daunting aspect of the research. I felt I had skills to tackle many other areas of research, such as basic interviewing skills and knowledge on sourcing literature, but analysing data from raw material was something completely new. Conducting a systematic review was the start of engaging in this process and provided experience of analysing data on a smaller scale prior to grappling with the immense data generated in the qualitative study. I had attended a study day on NVivo software, designed for managing and storing data collected from qualitative studies, and my success on this occasion convinced me to incorporate this software into my study. This enabled me to feel comfortable that I had a systematic way of storing and auditing my data. I was very aware from the beginning that this software cannot analyse data and that the intellectual endeavour of analysis must be done by the researcher.

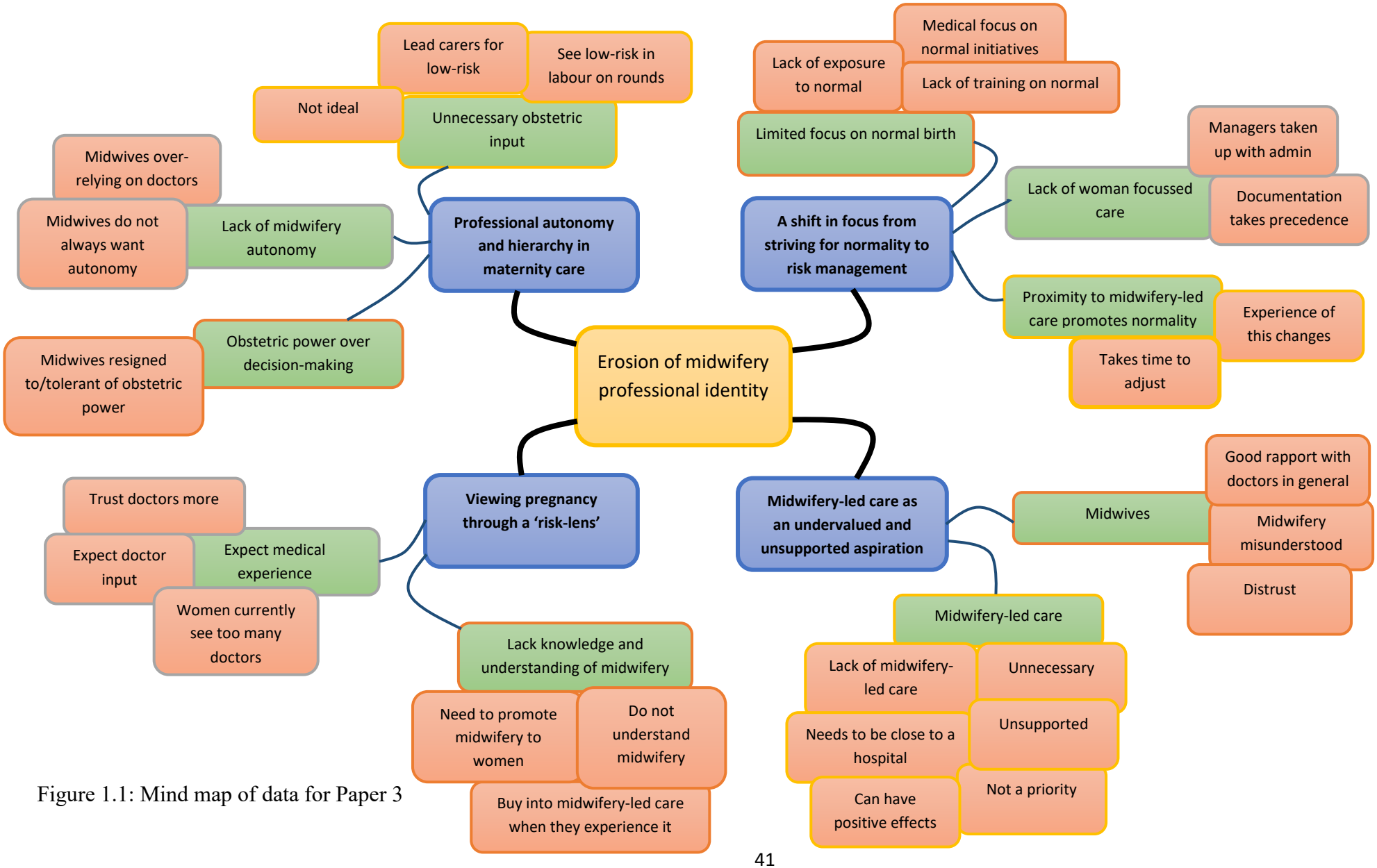

Figure 1.1: Mind map of data for Paper 3

1.9.5 Trustworthiness

Trustworthiness is a model proposed by Lincoln and Guba (1985) that addresses how to build trust in qualitative research so that practitioners can implement evidence-based care with confidence (Thomas and Magilvy 2011). It addresses the issues of credibility, transferability, dependability and conformability. Within the constructivist paradigm, these terms replace the usual positivist criteria of internal and external validity, reliability and objectivity (Denzin and Lincoln 2011). Sandelowski (1993) presents trustworthiness as a basis for assessing whether the study was undertaken as described by the researcher. The following section describes how these criteria were achieved in the research design/process and particular importance is placed on making them explicit due to the pluralist nature of the methodology. Whittemore *et al*. (2001) warns that 'pluralism as an uncritical hodgepodge is not quality work'

1.9.5.1 Credibility

Credibility refers to the ability of another, who shares the same or a similar experience as the participants, to recognise the accuracy of the interpreted findings (Lincoln and Guba 1985, Thomas and Magilvy 2011). This is achieved through strategies such as the researcher seeking, in the transcripts, similarities within and across participants, triangulation, member checking and peer review. Credibility was achieved in this study by identifying the repetition of similar experiences by participants and seeking out alternative hypotheses. This was verified by my two PhD supervisors. Triangulation was achieved by all three of us reviewing the data and reaching agreement about the analysis of data. Peer checking was not drawn upon as I agree with Thorne *et al*. (2004) that when individuals validate the findings of a study it can be misleading because interpretation should extend beyond what any one individual perceives in their personal situation. Thorne *et al*. (2004) suggest the 'thoughtful clinician test' in which experts in the field verify if the findings are plausible. This technique was not used in this study but I would consider it in further qualitative studies I undertake.

1.9.5.2 Transferability

Transferability relates to the ability to transfer research findings from one group to another or to determine if the findings have applicability in other contexts (Lincoln and Guba 1985, Thomas and Magilvy 2011). Transferability can be established by reporting a dense description of the participants including demographics and geographic boundaries. Performing the study with a different group can be used to compare

findings. The reporting of this study has attempted to give a comprehensive description regarding the demographics and characteristics of the participants and units involved without compromising the identity of participants. Further details were collected and are available but not reported to protect the identity of participants.

1.9.5.3 Dependability

Dependability is confirmed when the decision trail used by the researcher can be followed by another (Thomas and Magilvy 2011). This 'audit trail' is achieved by giving precise details of how the study was conducted. Strategies to determine dependability include having another researcher independently participate in the analysis stage and establish if results are similar or enhance the original findings. This study used NVivo 11 to record an audit trail. This includes a comprehensive database, a transparent process of how codes were used to form themes and memos to explain the rationale behind decisions regarding coding and grouping of codes. Examples of the organisation of data as it was coded and generated into higher level grouping of codes and themes are shown in Appendix B.

1.9.5.4 Confirmability

Confirmability is similar to objectivity in quantitative research and is considered to have occurred when credibility, transferability and dependability have been confirmed (Thomas and Magilvy 2011). Reflexivity of the researcher is considered central to demonstrating confirmability. In this study, I have made my position transparent in relation to the research and I have attempted to be self-critical at each stage of inquiry, engaging the support of my supervisors in this process as I gradually increased my knowledge and skills as a developing researcher throughout the PhD process.

In keeping with the theory of social constructivism it is acknowledged that the researcher is part of the social construction of the knowledge being generated. Researcher bias is seen as inevitable (Burr 2015) but using participant quotes to support findings is utilised to maintain confirmability. The findings are also opened to alternative interpretations by the verification of findings by three separate researchers (myself and two PhD supervisors). Initially as a novice researcher, I feel that the input of my supervisors was essential to the validity of the study by helping me identify theories and concepts that were emerging from the data and not because of preconceptions. For future research projects, I would have more confidence in my

ability to confirm the trustworthiness of a study but would still employ team members to verify findings.

1.9.6 Ethical approval process

Ethical approval was granted by three relevant ethics committees in the geographical health areas in which the three maternity units are located. These geographical areas are under the umbrella of the Health Service Executive (HSE), the statutory public body responsible for healthcare delivery in the Republic of Ireland. A standard ethics form was used in the application for ethical approval from the three committees. I was required to submit the interview schedule, information sheet, recruitment poster and consent form as a part of my application. Approval was granted to carry out semi-structured interviews with participants in each setting. Originally, the study sought to carry out observations in the settings to further inform the inquiry but ethical approval was denied. The reason given for this was that it would entail written informed consent from every individual woman birthing in these settings and from each healthcare professional involved in her care, which we felt as a team would not always be possible and hence be a breach of our ethics agreement. I was disappointed with this decision as I felt observational data could add quality data to the study. In future, I would consider seeking permission to observe a limited number of birthing scenarios and would attempt to obtain consent from women prior to delivery and match this with a healthcare professional who had also given consent.

1.9.7 Publication Process

From early in the doctoral research process I made a commitment to attaining a PhD by publication. This contributed enormously to my ability to write academic papers in a concise, clear and informative manner. The rigorous peer-review process upon submission of the three papers to relevant journals sharpened the presentation of findings, discussion and conclusions. Comments and suggestions from reviewers were particularly useful. Publication of these papers also confirmed the relevance of my research to maternity practice and its contribution to knowledge. Table 1.4 outlines the timeline for the research but also highlights when each paper was either published or submitted.

Table 1.4: Outline of research timeline	
Research aspect	**Dates carried out**
Integrative literature review	April 2013 – April 2015
Ethical approval	Spring 2014
Data collection - Unit A	June 2014
Data collection - Unit B	July 2014
Data collection - Unit C	August 2014
Data collection from community midwives	July and August 2014
Transcription and data analysis	June 2014 – June 2016
Paper 1 - published	April 2016
Paper 2 - published	March 2016
Paper 3 - accepted for publication	February 2017 (In Press)
Paper 4 - submitted for review	May 2017

1.9.8 Summary of research design, methodology and methods

This section has provided an account of the research design for this study and an explanation for decisions made. As a researcher, I faced many dilemmas on my journey through this study. Often the answers were clear but at other times further investigation was required. Choosing a design for the study entailed a process of reflection in which I had to make decisions about my ontological and epistemological viewpoints. This was informed by an in-depth search of the literature and many discussions with my supervisors to come to a decision on methodology. In ways, choosing appropriate methods was easier but it was during the practical application of these methods that their ease or difficulty and their suitability became more apparent.

The ethical dimensions of this study were important to me. As the research progressed, the obligation to create a study that was trustworthy became clearer in my mind. I came to fully appreciate the responsibility of researchers to produce quality research grounded

in evidence as their findings may be used to inform practice. I came to recognise that flawed or biased findings can have serious consequences for practice (Thorne 2004). I attempted, in this section, to clearly identify how trustworthiness was achieved and create an audit trail that could verify my findings. The concepts of beneficence, non-maleficence and informed consent were maintained throughout the study to protect participants who willingly provided their time and input with no incentives for participation offered. This section has attempted to clearly describe the whole approach and its application, and strengthen the claim by providing a description of the ethics approval process undertaken prior to commencement of the fieldwork.

1.10 Conclusion

In this chapter I have introduced the research topic on which this thesis is based: how midwives' and obstetricians' perceptions of risk affect care practices for low-risk women and normal birth. I have presented the background and context of this topic and how I have engaged with the topic as a researcher and midwife and what this experience has contributed to my professional development. A detailed account of how the primary research was designed and carried out was presented. The next four chapters of the thesis present the four publications that make up the body of this thesis. Table 1.5 summarises these four research papers. The final chapter then discusses the findings from the four papers considering the theoretical, methodological and practical implications of the thesis.

Table 1.5: Summary of findings from the four papers included in this thesis (Papers 1-4)				
	Paper 1 (Published)	**Paper 2 (Published)**	**Paper 3 (Published)**	**Paper 4 (Under review)**
Design	Systematic Integrative review (Cooper's five stage process)	Discussion paper	Qualitative design	Qualitative design
Data Collection	Literature review	Literature review and preliminary findings from primary study	Semi-structured interviews	Semi-structured interviews
No. of Participants	13 studies, outlined in 14 research papers, met the inclusion criteria	N/A	Obstetricians (n=9) Midwives (n=16)	Obstetricians (n=9) Midwives (n=16)
Time of data collection	2013-2014	2014-2015	2014	2014
Data Analysis	Thematic	N/A	Thematic	Thematic
Aim	This review synthesises original research that examines how perceptions of risk impact upon midwives' and obstetricians' facilitation of care for low-risk women in	To reflect on the implications of the preliminary findings of the primary research study on the structure and processes of maternity care. To discuss how risk perception affects	To further understand midwives' and obstetricians' perceptions of risk regarding low-intervention birth and investigate how this affects decision-making.	To further understand midwives' and obstetricians' perceptions of risk regarding low-intervention birth and investigate how this affects decision-making

	labour.	pregnant and birthing women.		
Main Results	The findings of this review revealed an over-arching theme of an assumption of abnormality in the birthing process leading to unnecessary intervention and surveillance. Findings indicate that both midwives and obstetricians engage in interventions and detailed surveillance of labour where it is often unwarranted because of this assumption. It also emerged that midwives who do not subscribe to this assumption either employ tactics to counteract this or resign themselves to the inevitability of this model of care. Also apparent is that women are often not involved in decision-making opportunities with maternity healthcare professionals regarding their labour.	This paper argues that skewed perceptions of risk have produced a maternity service that focuses solely on clinical outcomes as opposed to optimal, holistic care. It states that this is having a negative impact on maternity care and the profession of midwifery. Within maternity care, both structural and operational factors contribute to heightened risk perceptions. Women are processed through a system where risk-management strategies can take precedence over individualised care as health professionals attempt to protect themselves from implication in adverse outcomes and litigation, depriving women of psychosocial safety in the birth process.	These findings suggest midwifery is assuming a peripheral position regarding normal birth as a progressive culture of risk and medicalisation affects the provision of maternity care. Midwives are professionally recognised as the experts in normal birth but this role is either not apparent or diminishing as obstetrics is increasingly prominent in normal birth. Our findings suggest that midwives themselves contribute to this; they operate at a level of sub-optimal professional accountability and autonomy to avoid implication in adverse outcomes.	Individualised risk assessment often appears to be subordinate to the pursuit of positive clinical outcomes, particularly perinatal and maternal mortality rates. This has the result of lessening the 'care' aspect of maternity provision. Contributing to this, formal reflection on risk and how it impacts care is neglected and has resulted in maternity services where obstetricians and midwives are working defensively, leading to women not always receiving appropriate woman-centred care.

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Chapter 2: Paper 1

Paper 1 – Midwives' and obstetricians' perceptions of risk and its impact on clinical practice and decision-making in labour: An integrative review

2.1 Abstract

Background: Risk and risk assessment are increasingly affecting how maternity services are governed with rates of intervention continuing to rise in obstetric-led services for low-risk women.

Aim: This review synthesises original research that examines how perceptions of risk impact on midwives' and obstetricians' facilitation of care for low-risk women in labour.

Methods: A five stage process for conducting integrative reviews was employed. A robust search strategy incorporated electronic searches in The Cochrane Database of Systematic Reviews, EBSCO, EMBASE and Scopus from 2009-2014. The initial search resulted in the retrieval of 2,429 articles but was reduced to fourteen through a systematic process.

Findings: The results of this review revealed an over-arching theme of an assumption of abnormality in the birthing process leading to unnecessary intervention and surveillance. Three sub-themes are presented under this central theme: (1) Influences on risk perception that include practice guidelines and professional responsibility; (2) Influence of personal fears and values on risk perception focusing on differing attitudes to physiological birth; (3) Impact of professionals' perceptions of risk on women's decision-making in labour.

Conclusion: Practice is influenced by an assumption of birth as abnormal and is compounded by issues such as institutional risk management, lack of midwifery responsibility, fear of involvement in adverse outcomes and personal values regarding physiological birth. These findings suggest that a shift in focus away from risk and towards health and well-being in the planning of maternity care may go some way towards providing a solution to the increasing intervention rates for low-risk women.

Keywords: childbirth, risk, decision-making, labour, midwifery, obstetric

2.2 Introduction

The concept of risk has largely altered from an accepted part of life to something that must be avoided or controlled (Jordan and Murphy 2009). Risk and risk assessment are continually affecting how maternity services are governed (Bryers and Van Teijlingen 2010). The perception that birth can only be considered safe in retrospect is creating a system where interventions are practiced to avoid the occurrence of prospective negative incidents (Cherniak and Fisher 2008). This technocratic model of birth extols technology and anticipation of pathology. This contrasts with the social model that anticipates normality with technology seen as a servant and not a master (Walsh *et al*. 2008).

In the United Kingdom (UK) the normal birth rate stands at 42% which is a significant decrease since the 1990's (Dodwell 2012). This figure accounts for women who birth without induction, pharmaceutical anaesthesia, forceps, ventouse, caesarean or episiotomy. Similar patterns are reflected in figures from Ireland and Australia (ESRI 2013, Li *et al*. 2013). This is despite encouragement for all women to have as normal a pregnancy and birth as possible which has been highlighted as crucial in the on-going focus of improving maternity care (UK, Dept. of Health 2007). Regardless of guidelines (Delgado Nunes *et al*. 2014) that urge professionals to foster the view that birth is safe for low-risk women and their babies, women's confidence in their ability to have a normal birth is increasingly diminished. This is often because of an increased focus on risk assessment and risk management with high-tech maternity units often viewed as the safest place to birth (Bryers and Van Teijlingen 2010). Research exists to support the safety of out-of-hospital birth and a large prospective cohort study in the UK (Brocklehurst *et al*. 2011) revealed that 30% of low-risk multiparous women are likely to have intervention if they birth in an obstetric-led unit compared to between 5% and 9% in a midwifery-led unit with equivalent perinatal outcomes.

Although interventions are largely considered to be the domain of obstetricians, midwives are increasingly accepting these as normal within the hospital environment (O'Connell and Downe 2009). Midwives working in obstetric-led settings are exposed to increasing amounts of intervention resulting in higher perceptions of risk regarding women who are in fact low-risk (Downe *et al*. 2007). This is equated to 'learning the lessons of fear' (Dahlen 2010) and it is suggested that healthcare professionals are increasingly being obliged to work in this model of care, both willingly and reluctantly, in the name of safety (Downe *et al*. 2007).

Risk management policy and its associated operations within hospital institutions very often do not account for the underlying philosophy and assumptions of risk discourse that are present and have a bearing upon practice (Walsh *et al* 2008). Salutogenesis has been suggested as a theory to deliver changes to the planning and delivery of hospital-based maternity services (Downe 2010). This would incorporate a focus on what factors contribute to positive as opposed to negative outcomes and could contribute to tackling the high levels of intervention that appear to be elusive at present (Downe 2010).

The aim of this integrative literature review is to synthesise evidence about midwives' and obstetricians' perceptions of risk about birth when facilitating care for low-risk women in labour ward, hospital settings. It will examine how these perceptions affect the undertaking of interventions and the use of technology in labour. Obstetricians are included in this review as they are involved in the planning of care for low-risk women in obstetric-led settings and in the delivery of care for their low-risk private patients (Kennedy, P., 2010.) Although reviews exist that investigate midwives' experiences of working in hospital labour wards (O'Connell and Downe 2009) and professionals' views of fetal monitoring (Smith *et al*. 2012) to our knowledge there are no existing literature reviews particularly pertaining to this topic. Due to the significant rates of intervention for low-risk women in obstetrical settings it is important that perceptions of risk of both midwives and obstetricians working in this setting are examined to understand how they may be contributing to the rising intervention rates. *This review will ask the following two questions:*

What factors affect midwives' and obstetricians' perceptions of risk when facilitating care for low-risk women in labour?

How do perceptions of risk impact on midwives' and obstetricians' clinical practice and decision-making when facilitating care for low-risk women in labour?

2.3 Methods

This review followed the systematic approach to integrative reviews devised by Cooper (1982) incorporating an up-dated methodology of this framework by Whittemore and Knafl (2005). Particular attention was paid to the design and conduct of the search strategies, appraisal of study quality and methods for synthesis as these have been highlighted as areas of challenge by the Cochrane Qualitative Research Methods Group (Higgins and Green 2008). This is a particularly appropriate review method for the

nursing/midwifery disciplines as traditional systematic reviews, which place an emphasis on randomised clinical based trials, often fail to answer complex decisions that practitioners are faced with in reality (Dixon-Woods *et al*. 2006). The following section is reported in a five-stage process that includes stages similar to primary research. This method is also consistent with the PRISMA (2009) guidelines for reporting systematic reviews (Moher *et al*. 2009).

Stage 1: Problem identification

Search strategy tools have been developed to help researchers define key elements of a review question but most focus on reviews of quantitative studies such as PICO (Population, Intervention, Comparison, Outcome). It has been suggested that using the SPIDER tool, which was adapted from PICO, may be more appropriate for reviews of qualitative/mixed method studies (Cooke *et al*. 2012). The SPIDER tool was employed for this integrative review as it was felt that the terminology used in the research questions was more suited to this particular tool (Table 2.1). The search terms developed from this tool can be seen in Table 2.2.

Table 2.1: SPIDER tool to define key elements of review question

S (Sample): Healthcare professionals who work directly with and have responsibility for labouring women in hospital settings (obstetric-led settings) - Midwives, obstetricians, obstetric-nurses, nurse-midwives

PI (Phenomenon of Interest): How does perception of risk manifest in clinical practice and decision-making in labour.

D (Design): Cooper's 5 stage process that is informed by Whittemore and Knafl's updated methodology for integrative reviews. This will also be influenced/informed by PRISMA guidelines for systematic reviews.

E (Evaluation): Attitude, opinion, perspective, perception, view, insight, experience, approach, decision-making, practice

R (Research type): Qualitative, quantitative and mixed method primary research studies

Table 2.2: Search strategy from Scopus database
(1)Birth (2)Childbirth (3)Parturition (4) 1 or 2 or 3 (5)Midwi* (6)"Nurse midwi*" OR nurse-midwi* (7)Obstetrician* (8) 5 or 6 or 7 (9)Risk* (10)"Risk assessment*" (11)Safe* (12) 9 or 10 or 11 (13) Attitude* (14) Opinion* (15) Perspective* (16) Perception* (17) View* (18) Insight* (19) Experience* (20) 13 or 14 or 15 or 16 or 17 or 18 or 19 (21) "decision making" OR decision-making OR decision* (22) Approach* (23) Practice* (24) 21 or 22 or 23 (25) 20 or 24 (26) 4 and 8 and 12 and 25
Limit 26 to (PUBYEAR > 2008) AND (LIMIT-TO (DOCTYPE , "ar") OR LIMIT-TO (DOCTYPE , "re")) AND (LIMIT-TO (SUBJAREA , "MEDI") OR LIMIT-TO (SUBJAREA , "NURS")
All search terms were inputted using restriction of 'TITLE-ABS-KEY' field except for rows 9, 10 and 11 which were restricted using 'All' field. Limited to English language.

The search included peer-reviewed studies originating in Western Europe, Australasia and the North American continent from January 2009 until June 2014. Studies were excluded before this period in an attempt to present the most up-to-date and relevant findings. Only studies that include midwives who have experience working in hospital settings are included as this is the area that has been highlighted in which midwives have increased perceptions of risk for low-risk women in labour (Pilley Edwards and Murphy-Lawless 2006).

Stage 2: Literature search

The search strategy incorporated electronic searches from January 2009 to June 2014 in EBSCO (Academic Search Complete, Cinahl, Medline, Social Sciences Full Text), EMBASE, Scopus and Cochrane Library as these were deemed appropriate for research pertaining to midwives and obstetricians. This was followed by ancestry searching of the reference lists of both relevant theoretical articles and of the included studies (Cooper 1982). An example of the search used in the Scopus database is outlined in Table 2.2.

The results of the complete search are presented in PRISMA (Moher *et al*. 2009) format in Figure 2.1. The final number of studies included was reduced, using explicit methods based on inclusion/exclusion criteria (Table 2.3), to 13 studies providing 14 articles; two articles were included from the same study – Scamell (2011) and Scamell and Alaszewski (2012). The 13 studies included: one quantitative study and 12 qualitative studies. No systematic reviews met the criteria for inclusion in this literature review. The literature predominantly revealed studies pertaining to midwives with only three studies considering the views of obstetricians. Literature emerged from six countries which included five articles from Australia, five from the UK and one each from Canada, the USA, New Zealand and Belgium. A variety of methodologies were utilised in the included studies and these are identified in Table 2.4 which summarises the 14 papers.

Figure 2.1: Systematic Search Results

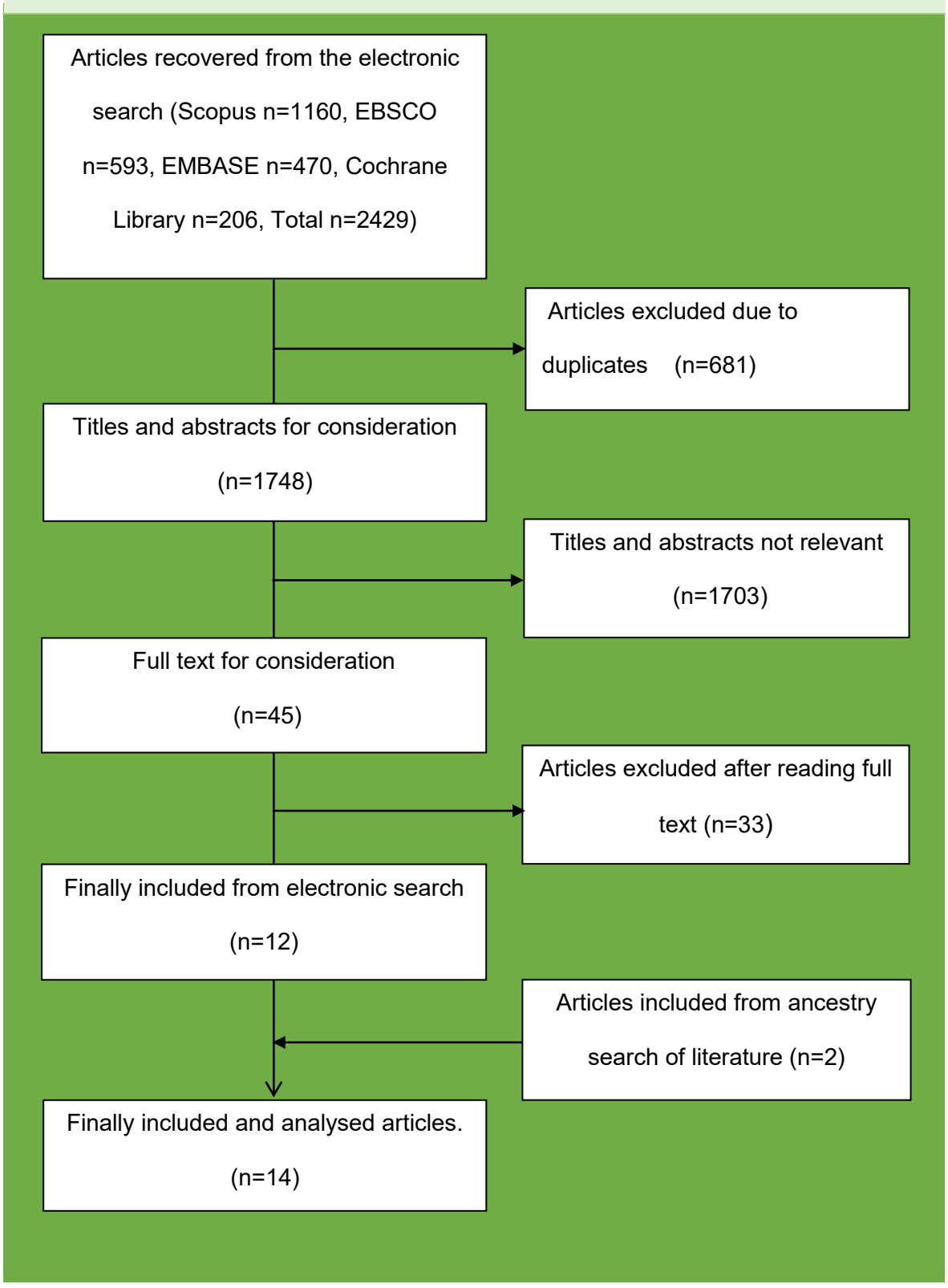

Table 2.3: Inclusion/exclusion criteria
Inclusion Criteria
Types of studies: • Primary Qualitative Studies • Primary Quantitative Studies • Systematic reviews Types of participants: • Midwives • Nurse-midwives • Obstetricians Studies must: • Relate to and be able to answer research questions • Include participants who work in obstetric-led, hospital maternity facilities in their sample • Be published from January 2009 to June 2014 • Originate from maternity systems in Western Europe, Australasia or the North American continent
Exclusion Criteria
• Non-peer reviewed studies • Published in language other than English

Table 2.4: Summary of research articles included in review						
Authors and country	**[a] Aim** **[b] Specifically looking at low-risk - Yes/No**	**[a] Participants** **[b] Setting**	**Study design and data collection**	**Data analysis**	**[a] Methodological quality assurance** **[b] Limitations** **[c] Score**	**Key messages**
Hood *et al*. (2010)[34] Australia.	[a] To describe midwives' experiences of involvement in legal proceedings. [b] No	[a] 17 midwives. [b] Hospital.	Qualitative: One-to-one unstructured interviews.	Thematic analysis.	[a] Co-researchers validated the emerging themes. [b] Interviewer approached some participants through snowball sampling. [c] Q2	The fear of litigation makes intervention more acceptable and decreases trust in birth. Expectation of natural birth in a litigation and fear based environment is unrealistic.
Seibold *et al* (2010)[32] Australia.	[a] To explore and describe midwives' perceptions of birth space and clinical risk management and their impact on practice. [b] No	[a] 17 midwives, including graduate year midwives, caseload midwives and hospital midwives. [b] Hospital.	Qualitative: An exploratory descriptive study utilising a modified participatory approach. Focus groups.	Framework analysis.	[a]Methodology transparent to reader. [b] Over-representation of graduate year midwives in sample. [c] Q2	Focus on preventing adverse outcomes through surveillance and intervention. Midwives become institutionalised and will perform interventions despite disagreeing. Obstetric dominance can limit midwifery autonomy.

Surtees (2010)[35] New Zealand.	[a] To explore the ways midwives talk about their management of differently perceived 'risks' in childbirth. [b] No	[a] 40 midwives. [b] Hospital, rural unit, community, home.	Qualitative: Ethnographic study. Observations and interviews used to gather data.	Discourse analysis.	[a] Narratives employed to highlight themes. [b] Sample and setting is not clear but evident it includes hospital-based midwives. [c] Q2	An increasingly litigious maternity culture and the expectation of a perfect outcome lead to midwives increasing reliance on technology for surveillance in labour to protect themselves from criticism.
Rattray *et al* (2011)[39] Australia.	[a]To explore midwives' decision-making related to the use of CEFM on low-risk labouring women. [b] Yes	[a] 5 midwives. [b] Hospital.	Qualitative: Grounded theory approach. Data collected with semi-structured interviews.	Data analysed using constant comparative method.	[a] Audit trail maintained. Analysis corroborated with research team and midwifery colleagues. [b] Small sample size. [c] Q2	Technology is used to minimise risk despite best practice guidelines. Medical dominance and being involved in a previous adverse event can affect use of CEFM.
Scamell (2011)[40] England, UK.	[a] To explore how midwives cope with attempting to instil confidence in mother's while attending to an array of risk focused tests and measurements. [b] No	[a] 42 participant observations, 15 non-participant observations of key meetings, 27 ethnographic interviews and text analysis of key	Qualitative: Ethnographic study.	Content analysis - conversational and discourse analysis techniques used.	[a] Analysis was continually corroborated with research team. [b] Snowball sampling can add bias but this was noted by researcher.	Detailed surveillance and a 'hunt' for abnormality is a routine midwifery practice. Risk downplayed by midwives when there are deviations from the norm.

		documents. [b] Hospital, midwifery-led unit, home.			[c] Q1	
Styles *et al* (2011)[37] Scotland, UK.	[a] To explore midwives' intra-partum referral decisions in relation to their attitude towards risk. [b] No	[a] 100 midwives who provide labour care. [b] Hospital, community maternity unit.	Quantitative: A web-based correlation study using questionnaires and vignettes.	Data was analysed using SPSS.	[a] The instrument comprised of 3 validated questionnaires. Pilot study used. [b] Participants may have reacted differently in real-life scenarios. [c] Q2	Midwives working in areas where there have been recent high profile adverse events are more likely to refer care to an obstetrician at an earlier stage.
Everly (2012)[31] USA.	[a] To explore the factors that affect labour management decisions of midwives. [b] No	[a] 10 certified nurse-midwives. [b] Hospital and birth-centre - recruited at a conference.	Qualitative: Grounded theory. One-on-one semi-structured interviews.	Thematic analysis.	[a] Seven participants confirmed credibility and trustworthiness. [b] No certified midwives included in sample. [c] Q2	Midwives need to remind themselves to trust birth. Pressure to intervene in hospital settings. Midwives feel less autonomy working in a hospital setting.

Hall *et al* (2012)[27] Canada.	[a] To understand how care providers manage birth while minimizing risk but maximizing integrity. [b] No	[a] 16 family doctors, 12 midwives, 12 nurses, 5 obstetricians, 11 doulas. [b] Hospital and home.	Qualitative: Grounded theory. Focus groups with semi-structured interviews.	Constant comparative analysis.	[a] The co-researchers provided feedback on category development. [b] Focus groups interviewed care providers and women together. [c] Q2	Trust in birth can reduce the concern with risk. Midwives who view birth as risky embrace surveillance techniques and interventions while minimising women's responsibility.
Scamell and Alaszewski (2012)[26] England, UK.	[a] To examine the ways in which risk is categorised in childbirth, and how this shapes decision-making in the risk management of childbirth. [b] No	[a] 42 participant observations, 15 non-participant observations of key meetings, 27 ethnographic interviews and text analysis of key documents. [b] Hospital, midwifery-led unit, home.	Qualitative: Ethnographic study.	Content analysis - conversational and discourse analysis techniques used.	[a] Analysis was continually corroborated with research team. [b] Snowball sampling can add bias but was noted by researcher. [c] Q1	The risk adverse culture encourages the view that birth is only normal in retrospect. Normal birth has become defined by the absence of abnormality which leads to midwives undertaking detailed surveillance to rule out abnormalities.
Van Kelst *et al* (2013)[36] Belgium.	[a] To explore midwives' views on ideal and actual	[a] 12 midwives. [b] Hospital and home.	Qualitative: A hermeneutic phenomenological	Data analysed through van-Manen's six	[a] Deviant cases used with inclusion of three independent midwives.	Women have an unquestioning trust in healthcare professionals

	maternity care. [b] No		study. Semi-structured interviews.	research activities (1997).	[b] Interviewer knew two participants but actively avoided bias. [c] Q2	which may limit their desire to take responsibility for their own care. View that birth has hidden risks that cannot be anticipated.
Copeland *et al* (2014)[29] Australia.	[a] To explore midwives' perceptions about normality and risk in childbirth. [b] No	[a] 12 midwives. [b] Hospital.	Qualitative: Interpretative design using photo elicitation and semi-structured interviews.	Thematic analysis in NVivo.	[a] Maximum variation of settings and experience. [b] Photo elicitation can be powerful but manipulative. [c] Q2	Innate trust in birth but often must make compromises that comply with hospital guidelines. Midwives need to increase their autonomy to resist obstetric interventions.
Dove and Muir-Cochrane (2014)[30] Australia.	[a] To examine how midwives and women conceptualised childbirth risk. [b] No	[a] 8 community midwives, 1 obstetrician. [b] Community-based continuity of midwifery care model, facilitating home and hospital births.	Qualitative: Ethnographic study.	Carspeken's (1996) 5-stage framework.	[a] Member checking was used for evidence of researcher bias. [b] Researcher worked in the setting prior to study. [c] Q1	Midwives need to actively resist notions of risk. Continuity of carer aids women in taking responsibility for their decisions in labour.

Hunter and Segrott (2014)[33] Wales, UK.	[a] To demonstrate how a clinical pathway for normal labour influenced the relationship between midwives and doctors. [b] Yes	[a] 4 key informants including senior level midwives and doctors, 41 midwives, 6 doctors and 5 midwifery managers. [b] Hospital.	Qualitative: Policy ethnographic approach. One-to-one interviews focus groups and semi-participant observation.	Thematic analysis.	[a] Both researchers identified codes and relationships from data. [b] Significant difference in sample size between doctors and midwives. [c] Q1	Pathway allowed midwives to legitimise less intervention for low-risk women. Highlighted differing attitudes to risk around birth between professions.
Page and Mander (2014)[38] Scotland, UK.	[a] To explore midwives' perceptions of intra-partum uncertainty when caring for women in low-risk labour. [b] Yes	[a] 19 midwives. [b] Hospital, midwifery-led unit, community and home.	Qualitative: Grounded theory approach. Unstructured, one-to-one interviews and focus groups.	Constant comparative method.	[a] Bias continually highlighted with the research team. [b] Participants were asked not to identify individuals in their interview which may have curtailed data. [c] Q2	Confidence in practice and use of best evidence helps midwives to reject interventions. Uncertainty makes decision-making difficult but trust in birth helped midwives to be not afraid of uncertainty.

Stage 3: Data evaluation and extraction

The data evaluation stage involved two levels of extraction. Initially the methodological details of each study were extracted and assessed for quality and rigour. They were evaluated using the Crowe Critical Appraisal Tool (CCAT) (Crowe 2013) (Appendix C) which allows for a variety of research designs to be appraised using the same tool (Crowe *et al*. 2012). Studies are assessed on their own merits and not against a hierarchy of research designs. No studies were omitted from this review based on quality but appraisal allows comparison of results based on quality (Whittemore 2005). The methodological details, quality assurance and limitations of the studies are outlined in Table 2.4 and include a quartile score for each included study. Individual percentages are not supplied to allow for a certain amount of reviewer subjectivity.

Following this, common findings were extracted for subsequent analysis. These findings in the form of detailed summaries and key messages were extracted from each study based on an agreed format. This was the basis for the next stage of data analysis.

Stage 4: Data analysis

Thematic analysis was chosen as most appropriate for an integrative review as it allows one to draw conclusions across heterogeneous studies (Lucas *et al*. 2007). This method of analysis has received criticism as it can de-emphasise the methodological rigour of studies but this has been counteracted by supplying the limitations and quality assurances of each study in table format (Table 2.4). A four-step thematic synthesis process, as outlined by Lucas *et al*. (2007), was used to guide analysis resulting in themes that are outlined in the next section. The initial two steps of this process involve the extraction of data as detailed above. This was followed by the identification of emerging themes from each study which were synthesised to form the final themes. This was an iterative process in consultation with the co-authors which involved continual engagement with the data as themes were formed.

Stage 5: Presentation of results

The results of the review are presented as an analysis which involved summarising results into themes while providing a critique of methods and outcomes. Some studies are represented in more than one theme as they had several significant findings. An assumption of abnormality in the birthing process emerged as an overarching theme in this literature review. Three sub-themes are presented under this central theme:

(1) External Influences on risk perceptions; (2) Influence of personal fears and values on risk perception; (3) Impact of professionals' perceptions of risk on women's decision-making

Assumption of abnormality

The overarching theme of the assumption of abnormality emerged from across papers in this review (Scamell and Alaszewski 2012, Hall *et al*. 2012, Scamell 2011, Copeland *et al*. 2014, Dove and Muir-Cochrane 2014, Everly 2012, Seibold *et al*. 2010, Hunter and Segrott 2014). This is revealed through studies indicating that both midwives and obstetricians engage in interventions and detailed surveillance of labour where it is often unwarranted because of this assumption (Scamell and Alaszewski 2012, Hall *et al*. 2012, Scamell 2011). It also emerged that midwives who do not subscribe to this assumption either employ tactics to counteract this or resign themselves to the inevitability of this model of care (Copeland *et al*. 2014, Dove and Muir-Cochrane 2014, Everly 2012, Seibold *et al*. 2010, Hunter and Segrott 2014). This assumption of abnormality is apparent in the final theme where women are not involved in decision-making regarding their labour as a result of this (Hall *et al*. 2012).

External influences on risk perceptions

Nine of the included articles identified external influences that impact upon practitioner's perceptions of risk when caring for women in labour (Copeland *et al*. 2014, Dove and Muir-Cochrane 2014, Everly 2012, Hall *et al*. 2012, Hood *et al*. 2010, Surtees 2010, Van kelst *et al*. 2013, Seibold *et al*. 2010, Hunter and Segrott 2014). External factors refer to both formal and informal processes within maternity provision over which healthcare professionals have little individual influence. This includes guidelines and protocols for practice and assigned or assumed professional responsibility for decision-making. These were all qualitative studies but varied greatly in sample size from nine (Dove and Muir-Cochrane 2014) to 56 (Hunter and Segrott 2014). All the studies employed midwives in their sample with six obstetricians included in the study by Hunter and Segrott (2014). One obstetrician was included in the study by Dove and Muir-Cochrane (2014) to provide insight into how midwives conceptualise risk.

Four studies highlighted how strict protocols and guidelines increase and perpetuate the perception of birth as a high-risk event (Copeland *et al*. 2014, Everly 2012, Hall *et al*. 2012, Hood *et al*. 2010). An Australian qualitative study of midwives (Copeland *et al*.

2014) (n=12) that used photo elicitation as a data collection technique reported difficulty in negotiating the institutionalised nature of the hospital setting as they believe the inflexibility of protocols is not optimal to achieving normal birth. Most midwives felt conflict was inevitable if they deviated from protocol which they considered was often necessary to remain in the role as advocate for the woman. Midwives in an American (USA) study (Everly 2012) (n=10) with experience of both midwifery-led and obstetric-led environments discussed the increased pressure of working under strict guidelines in hospital settings. Many contrast this against facilitating labour in a birth-centre where guidelines were less prescriptive (Everly 2012). Midwives interviewed in an Australian qualitative study (Hood *et al*. 2010) (n=17) described experiences of being involved in legal proceedings and had conflicting views on the role of guidelines as a form of protection. Some saw them as a support that guided decisions in times of uncertainty whereas others suggested that they may be something to hide behind while restricting and disempowering both midwives and women, leading to increased rates of intervention. Canadian midwives linked practice environments with strong leadership to an ability to counteract the indiscriminate adherence to guidelines, at national and local level, that prioritise perceived risks over integrity of women (Hall *et al*. 2012).

There is evidence that the risk culture and assumption that birth is abnormal is increasingly affecting how the maternity services manage birth, perpetuating the power struggle between midwifery and obstetrics (Dove and Muir-Cochrane 2014, Everly 2012, Hood *et al*. 2010, Surtees 2010, Van kelst *et al*. 2013, Seibold *et al*. 2010, Hunter and Segrott 2014). Midwives see their role becoming eroded as an increased culture of risk and fear is leading to increased and unnecessary obstetric input (Hood *et al*. 2010). Obstetric decisions are venerated, even for women with normal labours, removing midwives from their role as experts of normal birth (Hood *et al*. 2010). A phenomenological study of Belgian midwives (Van kelst *et al*. 2013) (n=12) revealed similar struggles between the professions where midwives who see themselves as the protectors of normal birth implicitly or explicitly engage in strategies to prevent obstetric involvement in normal labours. Midwives in the same study highlighted the increasing worry that student midwives are learning from obstetricians rather than midwives as rates of physiological birth decline, further eroding the role of midwifery in hospital-based services.

Having to actively resist conforming to non-evidence-based practices and negotiating this with obstetricians can be difficult for midwives (Surtees 2010). These practices have, in particular, been identified as centring on the assumption that time restrictions are necessary for labour, restricting midwifery care in the hospital setting (Dove and Muir-Cochrane 2014, Everly 2012). An exploratory study of midwives in Australia (Seibold *et al*. 2010) (n=18) highlighted how a focus on clinical risk management accompanied by an underlying risk discourse is affecting decision-making. Midwives from this study believe that they have become institutionalised and thus will perform interventions when requested by obstetricians despite disagreeing with them. This study also directs attention to how risk is perceived in terms of physical harm to the mother or baby, discounting psychological harm, resulting in care that is strongly fixed on preventing adverse outcomes through detailed surveillance and intervention in labour. The ethnographic study by Dove and Muir-Cochrane (2014) (n=9) suggested that conflict not only exists between midwifery and obstetrics but reported that hospital-based midwives actively sabotage community midwives when they facilitate planned hospital birth for their caseload women. Hospital-based midwives in this study appeared to display higher perceptions of risk regarding birth that is more in line with their obstetric colleagues.

A Welsh study (Hunter and Segrott 2014) (n=56) used policy ethnography to evaluate how a clinical pathway for normal birth affected practice found that midwives could legitimise resisting obstetric notions of abnormality and risk that often conflicted with midwifery values of normality because of this pathway. Midwives recounted how they no longer need to justify why they are not intervening sooner as the evidence-based clinical pathway supported their decisions. They felt it gave them permission to challenge the medical approach which they had done in a covert fashion up to the introduction of the pathway. Although this pathway supports midwives in providing evidence-based care obstetricians reported feeling excluded from the care of low-risk women and are concerned that they only became involved at critical moments while having little knowledge of the case.

In summary, the research suggests that the culture of risk and assumption of abnormality regarding birth that is inherent in many institutional, hospital settings is resulting in the prioritisation of the technocratic, obstetric-led model of care with a diminishing of midwifery input and autonomy in normal birth. Midwives working in obstetric-led settings can become institutionalised with increased perceptions of birth as

abnormal and in need of intervention. This can be perpetuated by strict guidelines and protocols that leave little room for individual decision-making. The implementation of care pathways that are evidence-based may contribute to midwives having increased autonomy and trust in normal birth within the hospital setting.

The influence of personal fears and values on risk perception

Eight of the papers included in this review reported findings that relate to how personal fears and values impact upon practitioner's perceptions of risk when caring for women in labour (Scamell and Alaszewski 2012, Everly 2012, Hall *et al*. 2012, Hood *et al*. 2010, Surtees 2010, Styles *et al*. 2011, Page and Mander 2014, Rattray *et al*. 2011). These studies communicate the differences in how midwives cope with facilitating birth in a hospital setting, ranging from an innate trust in birth to perceiving birth as an event to be feared. They comprise seven qualitative studies that focus mainly on midwives apart from the Canadian study (Hall *et al*. 2012) that interviewed midwives (n=12) and obstetricians (n=5). The only quantitative study (Styles *et al*. 2011) (n=102) from the review is included in this theme and focusses solely on midwives.

Four studies conveyed how trusting the birth process can aid in resisting perceptions of risk (Scamell and Alaszewski 2012, Everly 2012, Page and Mander 2014, Rattray *et al*. 2011). A Scottish grounded theory study (Page and Mander 2014) (n= 19) illustrated how trust in birth and the body helps midwives to be unafraid of intra-partum uncertainty, which is described as the awareness that labour can deviate from the normal to the abnormal at any stage in labour. This study proposed that midwives who can tolerate greater levels of intra-partum uncertainty are more likely to perceive labour as normal than their colleagues who have a lower tolerance for uncertainty. Trusting the birth process has been acknowledged as being more difficult in a hospital environment with a need for midwives to constantly remind themselves about normality and trust (Everly 2012). Practice experience was seen as a major contributing factor in trusting both birth and one's own clinical judgement, allowing midwives to reject the rigid regime of obstetric-led labour when deemed appropriate (Page and Mander 2014, Rattray *et al*. 2011). Midwives who participated in an ethnographic study in the UK (Scamell and Alaszewski 2012) (n= 42 participant observations, n=27 interviews, n=15 key meetings) demonstrated professional pride about their belief in normal birth but the results of this study suggest that despite the abstract belief in the philosophy of normal birth this is not played out in reality where midwives undertake detailed surveillance in the 'hunt' for abnormality.

Fear of adverse outcomes and fear of being implicated in litigation have emerged from this review as having a significant effect on risk perceptions (Scamell and Alaszewski 2012, Hood *et al*. 2010, Styles *et al*. 2011, Rattray *et al*. 2011). Scamell and Alaszewski (2012) suggest that healthcare professionals have arrived at a place where they want to avoid any risk no matter how minute the possibility of it happening. Technology is increasingly seen as a means of mitigating against risk and a small qualitative study in Australia (Rattray *et al*. 2011) (n=5) found that midwives engage in the use of CEFM (continuous electronic fetal monitoring) where it is not required and despite best practice guidelines in an attempt to reduce the risk of an adverse outcome. Being involved in a previous adverse outcome was an influence on this behaviour as midwives recall how their practice continues to be affected by such events many years later. This is supported by Hood *et al*. (2010) (n=17) in which midwives recounted how their personal lives and emotional well-being were affected as a result of being involved in legal proceedings. They agreed that an increase in midwifery-led interventions that includes CEFM is a result of engaging in strategies to protect oneself from litigation. This study clearly illuminated how being involved in legal proceedings has instilled a sense of fear into midwives practice resulting in defensive practice that sees birth as potentially disastrous and needing constant vigilance. Of great concern in this study is the perception that midwives see leaving the profession of midwifery as a means to protect oneself. The only quantitative study (Styles *et al*. 2011) (n=102) included in the review used a web-based questionnaire and vignettes to assess midwives' referral decisions in relation to their attitude to risk. The results from this study strengthen the implication that experience of adverse events affects decision-making; midwives who worked in an area that had experienced several recent high profile adverse outcomes were significantly more likely to refer care to an obstetrician at an earlier stage than their counterparts. This study used hypothetical situations so it is difficult to know whether these midwives would react in the same manner in clinical practice and so caution should be taken when interpreting findings.

A fear of professional criticism has been identified in this review as impacting on individual risk management strategies (Scamell and Alaszewski 2012, Hall *et al*. 2012, Surtees 2010, Page and Mander 2014). Midwives highlighted the issue of the expectation of a perfect outcome by both parents and the healthcare system which is resulting in defensive practice (Surtees 2010). They see working in a high-tech unit as protection from the increasing litigious maternity culture. Continuous electronic fetal

monitoring (CEFM) is employed as there is a perception that action rather than inaction is a form of protection (Surtees 2010). It is felt that healthcare professionals will not be criticised for engaging in the non-evidence-based practice of over-surveillance but that there would be consequences for under-surveillance, especially in the aftermath of an adverse outcome (Surtees 2010). A Canadian study (Hall *et al*. 2012) (n=12 midwives, n=5 obstetricians) found that midwives who view birth as an essentially normal process and resist engaging in prevailing standards for intervention can often be worried about criticism from other healthcare professionals. There was a sense that surveillance from peers resulted in a need to meticulously document all care and account for what they didn't do rather than the care they did perform. This is reinforced by a UK ethnographic study of midwifery care (Scamell and Alaszewski 2012) (n= 42 participant observations, n=27 interviews, n=15 key meetings) across four practice settings which demonstrated that midwives appear to be very aware of their accountability in regard to adverse outcomes but feel that good outcomes are not celebrated or investigated. They described feeling like criminals following a bad outcome. Scottish midwives interviewed in a grounded theory study (Page and Mander 2014) (n=19) displayed self-criticism within their practice and speak of a strong sense of personal failure when there is a perception of having made an incorrect decision when facilitating labour. This is despite emphasising the difficulty and uncertainty in knowing exactly when a labour has deviated from the normal.

In summary, despite knowledge of best evidence healthcare professionals are engaging in detailed surveillance to protect themselves from the effects of adverse outcomes. There appears to be a sense of fear attached to not detecting abnormality in a timely fashion resulting in either litigation or criticism from colleagues. A desire to avoid all risk has skewed perceptions of what normal birth means for midwives but for those who have an innate trust in birth there appears to be a greater ability to resist notions of risk.

Impact of professionals' perceptions of risk on women's decision-making

Five papers from this literature review provide findings on how midwives' and obstetrician's' perceptions of risk impact on women's decision-making in their labour (Dove and Muir-Cochrane 2014, Everly 2012, Hall *et al*. 2012, Van kelst *et al*. 2013, Mandie Scamell 2011). These are exclusively qualitative studies and range in sample size from nine (Dove and Muir-Cochrane 2014) to 27 (Scamell 2011).

While the first subtheme in these findings implies that decision-making has been removed from midwives due to increased perceptions of risk the findings also suggest that decision-making has been removed from women. Despite moving towards the concept of partnership and shared responsibility with women in the birth process, obstetricians and midwives feel that they are ultimately responsible for the important decisions made. A Canadian grounded theory study (Hall *et al*. 2012) (n=12 midwives, n=5 obstetricians) revealed that healthcare providers had different attitudes to shared responsibility depending on their ability to relinquish control. Those who were confident in sharing power and responsibility with women were more likely to be able to resist unnecessary interventions. This contrasts with providers who feel that they are solely responsible for the birth process. These providers regard birth as a defective process and put their trust in interventions and surveillance while omitting any input from women. The threat of litigation and fear of adverse outcomes has made them unable to trust women in making decisions about their own care. It is felt that professionals are the experts and know best and if women were to decline interventions that are deemed normal this would put the healthcare provider in a vulnerable position if anything were to go wrong.

A qualitative study from the USA (Everly 2012) (n=10) indicates that while midwives might acknowledge the importance of shared care with women they report how this can be difficult in a hospital setting where control is often taken from the woman. The midwives admit that sharing responsibility takes increased effort from both the midwife and the woman in this setting. Dove and Muir-Cochrane (2014) studied midwives and women's' attempts to identify themselves as 'safe' practitioners and 'safe' mothers against the dominant obstetric discourse of risk and discusses the importance of the relationship between mother and midwife in sharing responsibility. This relationship is claimed to be central to the understanding of risk management. In this study midwives and women had built a relationship in the antenatal period prior to a planned hospital birth which facilitated the women taking control of their labours.

Women can often be implicitly removed from involvement in their care. Monitoring can be so taken for granted by midwives that its purpose can be unintentionally withheld from women (Van Kelst *et al*. 2013). It is suggested that this is compounded by the practice of downplaying risk to women when deviations from the norm are detected which may lead to women being unable to make informed choices about their care (Scamell 2011). On the other hand, providers find that despite giving women

information the responsibility is still often handed back to the provider when women decline making a final decision (Hall *et al*. 2012). Van kelst *et al*. (2013) (n=12) state that women often have an unquestioning trust in healthcare professionals, particularly obstetricians, which may limit their desire to take responsibility for their own care.

In summary, healthcare professionals can be reluctant to surrender responsibility to women as it may implicate them negatively in the event of an adverse outcome. In the risk culture of the hospital setting birth can be seen as an abnormal process with women being explicitly or implicitly denied the opportunity to make decisions and take responsibility for their care. This is compounded by the attitude that professionals know best. Healthcare providers' ability to relinquish control has been shown to lead to greater instances of shared decision-making with the development of a relationship between women and care providers assisting in this process.

2.4 Discussion

The key findings from this integrative review of 13 studies report a culture of risk within maternity hospital settings which is heavily influenced by the assumption that childbirth is an unreliable process. It identifies how healthcare professionals are increasingly risk-adverse (Hall *et al*. 2012, Surtees 2010, Styles *et al*. 2011) and engage in unwarranted surveillance and technology in an attempt to protect themselves from perceived litigation (Hood *et al*. 2010, Rattray *et al*. 2011). Also highlighted is the diminished responsibility and decision-making of both midwives and women because of this risk-adverse, fear-based culture (Copeland *et al*. 2014, Everly 2012).

This review illustrates how healthcare professionals have engaged in detailed surveillance to confirm normality but in so doing have introduced and amplified the concept of abnormality and the imagined possibilities of what can go wrong (Scamell 2011). Technology has become the perfect tool for detailed surveillance, compounding the sense of birth as pathological as it can increasingly identify and detect early deviations (Walsh *et al*. 2008). Technology despite being unable to detect absolute risk has been given a very high value by healthcare professionals and contributed to the medicalisation of birth (Kennedy, H.P. 2010). CEFM has become so widespread that many midwives and obstetricians employ it for all women, irrespective of their history and contrary to best evidence, and become fearful when they do not have a continuous reading of the fetal heart (Smith *et al*. 2012) This review supports previous research by

Kirkham and Stapleton (2004) into the culture of maternity services that suggests that technology is used as a 'prophylaxis' against litigation rather than a strive for excellence. Robust evidence can support maternity professionals to make decisions when practice involves a balance or risk and certainty (Walsh 2008), so it is vitally important that evidence–based care as opposed to fear-based care is promoted within institutions to ensure that women receive the appropriate care.

A significant finding of the review is the effect that the increasingly dominant risk-focussed model of care is having on midwifery care and autonomy. This review suggests that midwives perceive obstetricians as increasingly involved in the care of low-risk women while they are deprived of responsibility (Hood *et al*. 2010, Rattray *et al*. 2011). Midwives claim that fighting to retain their role as advocates for women and protectors of normal birth has become too difficult in a dominant, medical model of care that assumes birth requires obstetric management (Hood *et al*. 2010). Previous research has shown that midwives believe that the ability to manage birth in a medical manner is prioritised as a skill in obstetric-led settings (O'Connell and Downe 2009, Keating and Fleming 2009) with midwifery skills often looked upon with disdain or as competing directly with safety (Larsson *et al*. 2009). Hunter and Segrott (2014) detail how the implementation of clinical pathways for normal birth within the hospital setting supported midwives to become more autonomous practitioners. While this review proposes that midwifery autonomy is restricted an earlier study suggests that midwives do not fully understand the implications of professional autonomy and are incapable of exercising it in practice (Pollard 2003). Work by Hollins-Martin and Bull (2006) looks at the conforming behaviour of midwives and indicates that midwives refrain from challenging both guidelines and decisions by senior staff because of obligation but also from fear of adverse outcomes, litigation and conflict and intimidation. The introduction of clinical pathways for normal birth may empower midwives to apply their autonomy in clinical practice but caution must be taken as obstetricians can feel excluded. Downe *et al*. (2010) stress the need for effective multidisciplinary collaboration in maintaining effective, safe care for women irrespective of which professional is the lead carer. Support of midwifery autonomy and empowerment can result in services where women receive care from the most appropriate professional depending on their needs and policy makers need to consider midwifery-led models of care to improve the quality and safety of maternity care (Sandall *et al*. 2010).

The literature review suggests that many obstetricians and midwives perceive that they have ultimate responsibility for the birth outcome despite midwives often not having much responsibility for decisions in labour. Although women have indicated in previous research that they perceive shared decision-making as a positive experience (VandeVusse 1999) both midwives and obstetricians can be reluctant to surrender responsibility for decision-making. It is implied that there can be negative consequences for them if a woman makes a decision that results in an adverse outcome. The concept of partnership, which is based on equality and shared responsibility (Guilliland and Pairman 1995), has gained standing in maternity care and seeks to empower women. While this model gives women the role of primary decision-maker it can be argued that the healthcare professional remains responsible and accountable (Mander 2011). Some women may not want to take responsibility for decision-making but when there is complete trust in a care provider to make all decisions and the outcomes are less than perfect this can result in anger and litigation (Kennedy, H.P., 2010). This review emphasises the need for a change in the imbalance of decision-making and responsibility between the woman and her care-provider if professionals are to provide care that is not based on fear of litigation and women are to truly be involved in their own care.

This review highlights how the increased assumption of birth as risky is resulting in the adoption of often unnecessary intervention and detailed surveillance. Particular attention is drawn to how interventions and surveillance are employed to protect oneself from the implications of being involved in adverse outcomes despite research to the contrary. This culture results in diminished responsibility for decision-making for both midwives and women while venerating obstetric input (Hood *et al*. 2010). Mander (2011) proposes that it is as objectionable to irrationally base our maternity services on risk-aversion as it is to ignore risk altogether. It appears though that maternity care remains medically focussed and in-line with the technocratic model of maternity care adopting a minimal threshold for intervention and a dismissive view of labour physiology (Walsh *et al*. 2008). As a means of moving beyond the focus on risk Downe (2010) suggests that we begin to design our maternity services based on the theory of salutogenesis. This invites a focus on maintaining health as opposed to preventing pathology (Downe 2010) as outcomes in maternity care are still largely defined with a focus on risk as opposed to well-being (Smith *et al*. 2014). Further investigation into how this theory can contribute to positive change may counteract the current paradigm that focuses on surveillance and

risk (Perez-Botella and Downe 2006) and may help address the issues raised in this review.

2.5 Conclusion

The concept of risk and how it affects maternity care is complex but it is clear that the assumption of abnormality surrounding birth is contributing to the risk culture. This is compounded by midwives' and obstetricians' fears of adverse outcomes and litigation on themselves both personally and professionally. It is recommended that there needs to be a new focus on the provision of maternity services from policy level through to practice which decreases the focus on risk and promotes well-being and normality for all women. One of the suggestions for focussing on normal is the introduction of clinical pathways that ensure midwives become the lead decision-makers for normal birth. These pathways not only support midwives in caring for normal labours but also allow obstetricians more time to care for high-risk cases.

Reversing the trend towards practice that is centred on risk as opposed to evidence-based care is a key challenge facing maternity services and although the findings from this review cannot be generalised to all settings they demonstrate how perceptions of risk can affect the care that labouring women receive in hospital settings. While there were challenges in synthesising research from a wide range of studies, a systematic approach added to the reliability of the review. The authors acknowledge that there are limitations to taking a snapshot of maternity care across a period of time but feel that the results can update existing knowledge on the topic. A significant gap and a limitation of the review was the lack of literature focussing on obstetricians' perceptions of risk. Further study into the perceptions of both obstetricians and midwives who work in the same setting would be helpful in identifying differences and similarities in perceptions of risk but it may also provide increased knowledge of how both professions can work together to find ways of promoting health, well-being and normalcy in birth.

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Chapter 3: Paper 2

Paper 2 - Can maternity care move beyond risk? Implications for midwifery as a profession

3.1 Abstract

Maternal and infant mortality rates are reassuringly low in developed countries. Despite this, birth is increasingly seen as risky by women, health professionals and society in general. In wider society, women are subjected to a litany of risks regarding birth, including sensationalising negative incidents by the media. Within maternity care, both structural and operational factors contribute to heightened risk perceptions. Women are processed through a system where risk-management strategies can take precedence over individualised care as health professionals attempt to protect themselves from implication in adverse outcomes and litigation. This results in increasingly interventionist care, depriving women of psychosocial safety in the birth process.

Midwifery, as a profession promoting trust in normal birth, is threatened by this dominant medical model of maternity care and interventionist birth practices. Midwives need to act to reclaim their role in promoting normal birth, while balancing considerations of risk with the principle of woman-centred care.

Keywords

Risk, Childbirth, Midwives, Women, Intervention

3.2 Introduction

Changes in society, including higher levels of education in the population and higher expectations of health services have resulted in a belief that risk can be controlled or even prevented and nowhere is this more apparent than in maternity care. The focus of birth has shifted from accepted uncertainty towards risk prevention resulting in increased employment of clinical governance and risk-management strategies (Scamell and Alaszewski 2015). Consequently, the language of birth has evolved to incorporate words such as ‘hazard’, ‘harm’, ‘blame’, ‘vulnerability’ and ‘safety’ (MacKenzie Bryers and van Teijlingen 2010). As birth becomes reconceptualised in these terms, there is little tolerance for accidents where individuals - including midwives, obstetricians and women - are held accountable for adverse events (Scamell and Alaszewski 2015).

Risk management was originally meant to protect, but in healthcare today, risk management may be exposing people to more intervention than is necessary (Pilley

Edwards and Murphy-lawless 2006). This develops from heightened, and sometimes irrational, perceptions of risk. Such perceptions mean healthcare professionals are reluctant to accept even a minimal possibility of risk (Scamell and Alaszewski 2012), demonstrated by existing maternity practice where intervention and surveillance are employed even in the absence of risk factors (Rattray *et al*. 2011, Scamell 2011).

The purpose of this paper is to analyse what factors affect both women's and midwives' perceptions of risk regarding birth, and how this in turn affects the care women are experiencing. The wider socio-cultural factors that affect risk perceptions surrounding childbirth are considered prior to a discussion of how both the structural and operational processes of maternity services are impacting on risk perceptions and care regarding birth. This paper will argue that skewed perceptions of risk have produced a maternity service that focuses solely on safe outcomes, as opposed to optimal outcomes, and will discuss how this is having a negative impact on maternity care and the profession of midwifery.

This discussion paper is based on findings from an integrative literature review of midwives' and obstetricians' perceptions of risk regarding birth (Healy *et al*. 2015) and on reflections of the first stage of analysis from primary research currently underway on this topic (Healy *et al*. unpublished data). While the research is being undertaken in an Irish maternity care context, the issues discussed in this paper have wider relevance for the provision of maternity care in other countries. This paper is aimed particularly at the midwifery profession but has relevance for obstetricians, policy makers and maternity service users.

3.3 Background

Advancements in maternity care and health in general mean that maternal and infant mortality rates are continuing to decline in developed countries. Infant perinatal mortality rates currently stand at 5.9/1,000 births in Ireland, representing a decrease of 31% since 2003 (ESRI 2013). Direct maternal mortality rates in Ireland and the United Kingdom (UK) are as low as 3.25/100,000 maternities (Knight *et al*. 2014). Although these figures are extremely reassuring for both healthcare professionals and women, current practices do not reflect this. Caesarean section rates are rapidly increasing, with rates of normal birth in decline (ESRI 2013). Routine use of technologies that are not necessary is contributing to this. Electronic fetal monitoring, for example, was originally introduced to the labour ward setting to reduce perinatal mortality and

morbidity. Not only did it fail to reduce these incidences but it dramatically increased the rate of caesarean section, resulting in increased maternal morbidity (Walsh 2006). Intervention in the form of continuous electronic fetal monitoring continues to be used unnecessarily in obstetric-led units for low-risk women despite best evidence (Smith *et al*. 2012). This is often the result of fear of litigation and decision-making that errs on the side of caution (Hood *et al*. 2010).

These are worrying trends and it has been identified that women with healthy pregnancies who birth in midwifery-led models of care have similar perinatal outcomes to their hospital counterparts, but are far less likely to have intervention for their birth (Brocklehurst *et al*. 2011). Given the reported discrepancy in outcomes between models of care, consideration should be given to how health-care providers' perceptions of risk regarding birth, and the culture of risk within hospital institutions, affect care.

3.4 Socio-cultural perceptions of risk that impact maternity care

We currently live in a culture of risk amplification, with significance placed on the likelihood of adverse outcomes (Dahlen 2010). The judgement of risk is often relative, with an acceptance of certain risks while other less likely, less serious risks are found unacceptable (Symon 2006). The right to healthcare, increasingly, is seen as the right to health - leading to a lack of tolerance for unsatisfactory outcomes and a demand that professionals always 'get it right' (Wilson and Symon 2002, MacKenzie Bryers and van Teijlingen 2010). This has repercussions for maternity care, where unsatisfactory outcomes in child or maternal health are resulting in a thriving environment of blame, complaints and litigation (Symon 2002, MacLennan *et al*. 2005, Hood *et al*. 2010).

As society becomes increasingly risk averse, women are exposed to a continual speculation of risk regarding pregnancy and birth (Possamai-Inesedy 2006). Many view birth within the context of risk and have become hypersensitive to it (Scamell 2014). Scamell (2014) suggests that this is based on a fear of possible risk rather than the probability of it or from any substantial experience. For risk to have a benefit it must be intelligently balanced, weighed and contextualised (Rothman 2014). It is contended that the mass media contribute to the intensification of risk by reporting on it emotionally as opposed to intellectually, resulting in the severity of outcomes outweighing the probability of them in women's perceptions (Pilley Edwards and Murphy-lawless 2006). Reality television programmes such as *One Born Every Minute* present birth as

unpredictable and dangerous with very little focus on birth as a normal life event (Luce et al 2016). Stories of harmed babies are particularly newsworthy and add to the already heightened sense of risk and fear surrounding birth (Symon 2002). The media are rapid in their allocation of blame, perpetuating the notion that childbirth is not a natural occurrence but an event that warrants detailed surveillance and intervention (Coxon *et al*. 2012). Dr Sam Coulter-Smith, former Master of the Rotunda maternity hospital, in an interview with *The Irish Times* newspaper, argues that,

> It has now reached the point where the confidence of the public has been severely shaken and the quality of the services provided to our mothers and babies is questioned in the media on an almost daily basis … Tragic events, where they occur, need to be reviewed and examined but this should be part of a proper clinical governance system and should not be a trial by media when the circumstances are not fully understood.
>
> (Cullen 2015)

Subsequently, women are reluctant to take what are deemed 'unacceptable' risks for fear of being labelled as 'bad mothers' (Wilson and Symon 2002, Scamell and Alaszewski 2015). This was demonstrated in a large qualitative study (Cheyney 2008) where women described being labelled as selfish and irresponsible by friends, family and the medical profession for making the decision to have a homebirth. This social construction of childbirth as a medical event makes it almost impossible to avoid notions of risk that surround it (Possamai-Inesedy 2006), perpetuating a negative cycle of risk, resulting in increased interventions and surveillance (MacKenzie Bryers and van Teijlingen 2010).

In summary, women are subjected to a litany of risks regarding birth, resulting in perceptions of risk that are not always rational. The expectation of perfect outcomes for birth has skewed perceptions of risk for women and wider society. The mass media contribute to this by sensationalising negative incidents. This, in turn, is contributing to the culture of intervention and litigation. Operating in this culture, both midwives and obstetricians are under huge pressure to 'get it right' all the time.

3.5 Structural factors of maternity care affecting risk

Perceptions of risk regarding childbirth are prevalent in wider society, and are also embedded in the structure of the maternity service. Structural factors relate to the way the system is organised and includes the availability, acceptability and accessibility of

appropriate care at an individual, organisational or environmental level (Blankenship *et al*. 2000). These factors are deeply embedded in the way systems are organised; they develop over a long period of time and do not change in the absence of policy intervention. This section discusses how structural factors of maternity care, including models of care and risk stratification, have an impact on how risk is perceived; and how this, in turn, influences the care women experience.

Although midwifery-led care is thriving in some organisations and independently in certain areas, the majority of births in Ireland (>99% (Cuidiu 2011) and England (>92% (Brocklehurst *et al*. 2011) still take place in large, centralised, high-tech units under the care of an obstetrician, which has been a growing trend since the 1970's (Kennedy 2010). This is despite numerous reports including Changing Childbirth (UK, Department of Health 1993), Maternity Matters (UK, Department of Health 2007) and Midwifery 2020 (Chief Nursing Officers of England, Northern Ireland, Scotland and Wales 2010) that advocate choice of care models for women (MacKenzie Bryers and van Teijlingen 2010). Updated guidelines by the National Institute for Health and Care Excellence (NICE 2015) also advocate that professionals promote home or midwifery-led units as the safest birthplace for all low-risk women. England has considerably higher out-of-obstetric unit births than Ireland: 2.8% homebirths, 3% in alongside midwifery units and fewer than 2% in freestanding midwifery units (Brocklehurst *et al*. 2011) compared with 0.2% homebirths and less than 0.5% in alongside midwifery units. Ireland has no freestanding midwifery units (Cuidiu 2011, Meaney *et al*. 2015). Despite higher figures of women receiving midwifery-led care in England, a significant deficit persists as potentially 45% of women giving birth in the NHS in England are low-risk and therefore could avail of this option (Sandall *et al*. 2014).

The NICE (2015) guidelines advocate that women should be supported to birth wherever they feel safe, including hospital, but should be aware of what to expect from each model of care. Within obstetric-led models, a woman may rarely meet her lead obstetrician. Antenatal care in this technocratic, medical model tends to be fragmented with minimal midwifery input and a focus on diagnostic tests and surveillance rather than relationships. This system-based care as opposed to relationship-based care can result in women being deprived of opportunities to explore their fears in relation to childbirth and to understand how they shape risk in a social context (Dahlen and Gutteridge 2015). Alternatively, women who have experienced midwifery-led care and homebirth describe high levels of satisfaction with this model (Sandall *et al*. 2013). An

American qualitative study that interviewed 50 women (Cheyney 2008) details how a relationship with a midwife allowed women to reject the medical model of birth in favour of a social model that provided opportunities for educated and informed decision-making.

The low figures for midwifery-led care may reflect the lack of choice available, as an Irish study shows that women express interest in midwifery-led care where it is unavailable (Byrne *et al*. 2011). Despite this, many women actively choose obstetric-led care. This may be attributed to a widespread assumption that birth is medically risky and that a high-tech hospital environment can provide a higher level of safety, but with little consideration or understanding of how this can expose them and their babies to greater levels of intervention and, therefore risk (MacKenzie Bryers and van Teijlingen 2010, Coxon 2014).

Women are exposed to the concept of risk from an early stage in their pregnancy when they are processed through the hospital system. They will be stratified by risk status at their first antenatal visit, with their best hope being a low-risk categorisation (Rothman 2014). Although risk assessment has improved outcomes in certain situations, when applied to all pregnant women this can result in unintended but harmful consequences (Jordan and Murphy 2009). Possamai-Inesedy (2006) points out that introducing a term that holds negative connotations, i.e. risk, into the reproduction setting may have undesirable consequences for women. In fulfilling the role of guardians of normal birth, there is a call for midwives to advocate for cautious and evidence-based risk assessment that is both holistic and tailored to the individual (Jordan and Murphy 2009).

As most midwives now work in tertiary level care, their experiences of midwifery practice are such that exposure to normal birth as the 'norm' is diluted. Normal birth is defined as birth without induction, pharmaceutical anaesthesia, continuous electronic fetal monitoring, forceps, ventouse, caesarean or episiotomy (Maternity Care Worker Party 2007). Two studies using web-based surveys (Liva *et al*. 2012, Wiklund *et al*. 2012) identified that perinatal nurses and midwives working in standard obstetric-led labour wards are less likely to see normal birth as safe or important than midwives working in midwifery-led settings. Although midwives are professionally recognised as the experts in normal birth, this role is becoming eroded in obstetric-led units as an increased culture of risk and fear is leading to a veneration of obstetric decision-making for all women (Hood *et al*., 2010, Healy *et al*. 2015). A qualitative study of 18 perinatal

nurses (Carlton *et al*. 2009) reveals that many have lost their confidence in facilitating physiological birth, excelling in care for women with epidurals but struggling to cope when faced with a woman experiencing labour pains. Though the structure of mainstream maternity services can deprive midwives of opportunities to develop facilitation skills for normal birth, many midwives are happy to work in the obstetric-led model as it suits their life or they personally subscribe to the medical approach (MacKenzie Bryers and van Teijlingen 2010).

The current structure of maternity services is depriving women of opportunities to experience midwifery-led care; an obstetrically managed birth in a hospital environment is the only choice for most. This is creating a technocratic, medical-focused experience that is depriving women of the opportunity to develop knowledge and awareness of birth in their relationship with a midwife. This is so that they understand risk and can make informed decisions. Midwives operating in this system have developed skewed perceptions of risk (Page and Mander 2014, Liva *et al*. 2012), resulting in a loss of midwifery skills in facilitating normal birth (Larsson *et al*. 2009, Carlton *et al*. 2009). Midwives must engage in re-creating a culture of normality and trust in birth that places the woman at the centre of compassionate, relationship-based models of care (Cooper 2015).

3.6 Operational factors of maternity care affecting risk

As a culture of risk is increasingly embedded in both wider society and our healthcare structure, it is not surprising that it has manifested in the day-to-day operations of our maternity services. Operational factors that include strategies for care and risk management will tend to reflect the philosophy of care in a unit. This section discusses how risk-based care, including interventions to mitigate potential risks, is developing in maternity care. It then moves on to how this is affecting midwifery efficacy.

A focus on risk management

In the drive to provide safer maternity care there has been a dramatic rise in risk management (MacKenzie Bryers and van Teijlingen 2010) but managing risk is not necessarily the same as facilitating safety (Dahlen 2014). It may not improve outcomes and can potentially create negative consequences (Jordan and Murphy 2009). With the intensification of risk management, there has been an increased focus on preventing adverse physical outcomes while omitting psychological, cultural and spiritual well-

being. These are not considered to be of equal importance, which is highlighted by the lack of statistics on respectful and compassionate care (Byrom and Downe 2015).

Alongside greater emphasis on risk management is a growing fear culture within maternity care. There is an increased assumption by professionals that birth is an 'abnormal' process and 'normality' can only be attributed in retrospect (Scamell and Alaszewski 2012; Healy *et al*. 2016). A qualitative ethnographic study of midwives in the UK (Scamell 2011) demonstrates that this assumption is resulting in undertaking detailed surveillance to rule out abnormalities. Fear of litigation is used to justify intervention, augmenting beliefs that trusting the birth process in a litigious, fear-based environment is unrealistic (Hood *et al*. 2010). A Canadian study that interviewed 56 health professionals (Hall *et al*. 2012) reports that professionals may knowingly undermine women's confidence and responsibility by embracing intervention and surveillance techniques, and continue to do so to protect themselves from the effects of being involved in adverse outcomes. In this study, professionals defend the practice of making decisions in the 'best' interest of the mother or baby as they feel personally responsible for the outcome This external control can be destructive, as the woman's desire for a healthy baby may lead to an abuse of power where professionals provide information in an emotionally laden way to gain compliance, which goes against the ethos of informed consent (Munro 2015).

Midwives, in an effort to protect themselves from involvement in adverse outcomes, may deprive women of emotional safety in the name of risk management. To counteract the culture of risk and fear that is currently dominating maternity care, midwives must become acutely aware of their contribution to unnecessary interventions and the lack of holistic, women-centred care. Studies of care pathways for normal birth demonstrate that these pathways can assist midwives in using evidence-based care to legitimise less intervention for low-risk women (Cheyne *et al*. 2013, Hunter and Segrott 2014). Ultimately, there must be a refocusing of attitudes to birth, at the heart of which lies not only kindness but appropriate evidence-based care and not a 'tick-box' culture (Downe and Byrom 2015).

The impact of a risk culture on midwifery efficacy

Despite the claim that there has been an over-emphasis on the midwifery *vs* obstetrics debate (Coxon *et al*. 2012) a hierarchical structure exists within maternity services which can be directly attributed to risk management. Within obstetric-led models,

midwives see obstetrical hierarchy as preventing them from fulfilling their role (Keating and Fleming 2009, Cheyne *et al*. 2013). They report being overruled by obstetricians on decisions of care despite best evidence to support their practice (Surtees 2010). Midwifery 2020 (Chief Nursing Officers of England, Northern Ireland, Scotland and Wales 2010) proposes that midwives become the lead carers for all healthy women with straightforward pregnancies. However, in a qualitative study of 10 midwives (Everly 2012) participants reported how they are acknowledged and respected as the experts of normal birth in midwifery-led settings but that this does not apply in the hospital setting, where they are pressured by obstetricians to perform unwarranted interventions on low-risk women. Preliminary findings from one-to-one interviews for primary qualitative research currently underway reveal that obstetricians believe midwives do not want the responsibility of being lead carer as it exposes them to greater levels of professional risk in terms of accountability (Healy *et al*. unpublished data). These preliminary findings also disclose that midwives feel obliged to involve obstetricians at an earlier stage than previously to protect themselves against implication in adverse outcomes. This is supported by research revealing that midwives who have recently experienced high-profile adverse outcomes are more likely to refer care to an obstetrician at an earlier stage than their counterparts (Styles 2011).

Adding to diminishing midwifery efficacy is the diminishing of normal birth itself, as the current climate of care narrowly focuses on medical outcomes, disregarding the larger picture (Hyde and Roche-Reid 2004). This is resulting in a de-emphasis on midwifery skills and holistic care (Keating and Fleming 2009), considered a cornerstone of midwifery philosophy (Nursing and midwifery Board of Ireland 2015). Midwives have a duty to be experts and leaders for normal birth or there will continue to be a deepening fear of childbirth. If midwives do not fulfil this role, normal birth will become a thing of the past.

3.7 Conclusion

Despite obstetric and midwifery discourse appearing to be focussed on safety, in reality the focus is on risk management. It is questionable whether this focus is directed towards providing safer care for women and babies or towards protecting the healthcare professionals who work in the system. With a blame culture apparent in many services, it is not surprising that risk-based care takes precedent over considerate, individual care. The fear of being implicated in an adverse outcome can have devastating effects, both

professionally and personally, on healthcare professionals. There is a perception that engaging in risk management will have a protective effect, even at the cost of less-than-optimal care for women and babies.

Although risk management can minimise adverse clinical outcomes, there can be unintended consequences that increase morbidities for women and babies, particularly those linked to caesarean section. Therefore, midwives must engage in decision-making and care that is based on evidence, not fear. This entails seeking out opportunities to increase facilitation skills for normal birth so that these skills are not lost to the midwifery profession, and to ensure women experience quality individualised care.

Creating a culture of relationship-based care that is woman-centred and individualised, rather than service-centred, can provide opportunities for women to understand their perceptions of risk. This will contribute to them becoming actively involved in informed decision-making regarding their care. For low-risk women, having access to midwifery-led care is a necessity to counteract rising intervention rates, but before this can happen midwives must resume and embrace the role as experts of normal birth in all settings. Downe and Byrom (2015) urge midwives to have the courage to apply the solutions so that we can bring joy and passion back to maternity care.

It is important to keep pushing this agenda forward in the research arena to deepen understanding of attitudes to risk and appreciate how they have an impact on the care provided. While this paper is based on findings from a recent literature review and primary research currently underway, there is a strong resonance between the issues that emerged and recurrent discourse across a range of policy, research and media sources.

Key points

- Birth is increasingly seen as risky by women, health professionals and wider society
- A culture of risk management is resulting in maternity services that are medical-focused rather than women-centred
- There is a growing perception that birth requires obstetric involvement and intervention; this is prevalent in the midwifery profession as well as obstetrics
- Maternity professionals, in an attempt to protect themselves from involvement in adverse outcomes, are depriving women of psychosocial safety in the birth process

- Lack of relationship-based care diminishes opportunities for women to properly explore their attitudes to risk
- Midwifery, as a profession focused on promoting trust in normal birth, is threatened by the dominant medical model of maternity care and highly interventionist practices in birth. Midwives must act to reclaim this role, balancing considerations of risk with the principle of women-centred holistic maternity care.

Ethical Statement

As this is a discussion paper, no human or animal subjects were involved in this research. For this reason, ethical approval was not sought from any institution.

Conflict of Interest

The main author of this paper is a PhD student with the Department of Nursing of Midwifery in the University of Limerick. She is in receipt of a grant, in the form of a monthly stipend, from this university to pursue a PhD, but there is no conflict of interest in the reporting of data. The co-authors are supervisors of this PhD.

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Chapter 4: Paper 3

Paper 3 - A qualitative exploration of how midwives' and obstetricians' perception of risk affects care practices for low-risk women and normal birth

4.1 Abstract

Background: Maternity care is facing increasing intervention and iatrogenic morbidity rates. This can be attributed, in part, to higher-risk maternity populations, but also to a risk culture in which birth is increasingly seen as abnormal. Technology and intervention are used to prevent perceived implication in adverse outcomes and litigation.

Question: Does midwives' and obstetricians' perception of risk affect care practices for normal birth and low-risk women in labour, taking into account different settings?

Methods: The research methods are developed within a qualitative framework. Data were collected using semi-structured interviews and analysed thematically. A purposive sample of 25 midwives and obstetricians were recruited from three maternity settings in Ireland. This included obstetric-led hospitals, an alongside midwifery-led unit and the community.

Findings: Midwifery is assuming a peripheral position regarding normal birth as a progressive culture of risk and medicalisation affects the provision of maternity care. This is revealed in four themes; (1) Professional autonomy and hierarchy in maternity care; (2) Midwifery-led care as an undervalued and unsupported aspiration; (3) A shift in focus from striving for normality to risk management; and (4) Viewing pregnancy through a 'risk-lens'.

Discussion: Factors connected to the increased medicalisation of birth contribute to the lack of midwifery responsibility for low-risk women and normal birth. Midwives are resigned to the current situation and as a profession are reluctant to act.

Conclusion: Improved models of care, distinct from medical jurisdiction, are required. Midwives must take responsibility for leading change as their professional identity is in jeopardy.

Keywords

Midwives, obstetricians, autonomy, risk, medicalisation, childbirth

Definition of risk:

> Uncertainty denotes a future that cannot be predicted, an unknown. By contrast, thinking in terms of risk is a process of mitigating those unknowns, minimising the unpredictability of the future in an attempt to improve outcome.
>
> (Scamell 2014, p.921)

Table 4.1 Statement of Significance

Problem or Issue	What is already known	What this paper adds
Unwarranted intervention in birth, particularly for low-risk women, is leading to unnecessary morbidity. Most women in both Ireland and the United Kingdom give birth in obstetric-led hospitals despite policy change to reflect the appropriateness of midwifery-led care for many.	Midwives and obstetricians are using intervention and detailed surveillance to protect themselves from perceived implication in adverse outcomes and litigation. Midwifery-led care results in lower rates of intervention and increased satisfaction for women.	Midwives are resigned to the current medicalised, interventionist model of care and as a profession are reluctant to act. Midwifery professional identity is in jeopardy if the current technocratic model of care continues to dominate.

4.2 Introduction

Risk theory suggests that we live in a 'risk society' where the notion of risk has become more pervasive in modern times (Beck 1992). This is particularly noticeable in pregnancy and childbirth. While birth has become safer in many developed countries the risk discourse has intensified as emphasised by Chadwick and Foster (2014). As birth becomes reconceptualised in terms such as 'blame', 'harm', 'hazard' and 'safety' (Bryers and Van Teijlingen 2010) there is little tolerance for mistakes and accountability for adverse events can fall on individuals including healthcare professionals and pregnant women (Scamell 2016). Contributing to the intensification of the risk discourse is the rise in organisational risk regulation that is concerned with mitigating risk through clinical governance as a form of shared self-regulation (Coxon 2014). Scamell (2016) suggests that clinical governance undermines midwives' commitment to normal birth by escalating the 'scare factor of risk'.

Infant perinatal mortality rates currently stand at 4.7/1,000 births in Ireland (when corrected for congenital abnormalities), representing a decrease of 13.9% since 2005

(Corcoran *et al*. 2016). Direct maternal mortality rates in Ireland and the United Kingdom (UK) are as low as 3.25/100,000 maternities (Knight *et al*. 2014). While this is reassuring, maternity care in Ireland is facing increasing intervention and iatrogenic morbidity rates (Healthcare Pricing Office (HPO) 2016). This may be partly attributed to, for example, increasing maternal age and obesity but these changes in the maternity population do not fully explain the rise in interventions related to pregnancy and birth. Although technology and interventions have contributed to the decline of both infant and maternal mortality these are 'double-edged swords' when used without clinical indication (Soltani and Sandall 2012). An Australian study suggests that interventions can be performed to prevent perceived adverse outcomes and litigation, despite a lack of research to indicate their effectiveness (Hood *et al*. 2010). Dahlen (2016) warns that unmanaged fear and deeply held beliefs, without scientific evidence, can cause untold damage and lead to increased levels of intervention and surveillance for all women.

A recent review of Irish maternity services, which included review of international experiences from other developed countries, identifies how consultant-led services work well for complex pregnancies and emergency management but are over-medicalised for low-risk women (Ireland, Department of Health 2016). This review partly stemmed from a lack of care options available to pregnant women in Ireland. In total, there are 19 hospital units offering maternity services with over 99% of women birthing in one of these units under the care of a lead obstetrician (Ireland, Department of Health 2016). Approximately one-third of these women have booked privately with a consultant obstetrician (Lutomski *et al*. 2014). Two co-located midwifery-led birth-centres are in operation and some hospital units offer limited midwifery-led antenatal care and limited homebirth services (Ireland, Department of Health 2016). Approximately 20 self-employed community midwives offer a homebirth service throughout Ireland so consequently only 0.2% of women birth at home with 0.6% birthing in midwifery-led centres (Corcoran *et al*. 2016, Ireland, Department of Health 2016). Two Irish studies (Byrne *et al*. 2011, AIMS Ireland 2015) suggest that women want more choice, particularly midwifery-led birth-centres, but are constrained by the services on offer in their areas.

UK government policy and international guidelines identify midwives as the most appropriate profession to care for women with healthy pregnancies and have been promoting the benefits of midwifery-led care for over 20 years (UK, Department of Health 1993, UK, Department of Health 2007, Chief Nursing Officers for England,

Wales, Northern Ireland and Scotland Childbirth 2010, NICE 2015). Research demonstrates that intervention rates decrease and satisfaction rates increase when women are cared for by a named lead midwife or team of midwives in a continuity model of care (Sandall *et al*. 2016). It is suggested that despite the high level of policy support for alternative birth settings there continues to be limited opportunity for women to avail of them and this may be a result of contemporary discourse that emphasises risk, blame and responsibility, ultimately constraining women's decisions and choice (Chadwick and Foster 2014).

Although policy supports midwives to lead care for low-risk women, findings from a systematic review indicate that midwives increasingly view birth as abnormal with normality now defined by the absence of abnormality (Healy *et al*. 2016). Australian and UK studies found that midwives may be increasingly risk averse, relying on technology and surveillance to rule out abnormalities (Scamell 2011, Rattray *et al*. 2011). Several qualitative studies from Ireland, Australia and Sweden reveal that a focus on clinical risk management, and an underlying risk discourse, is affecting the role of midwifery advocacy and autonomy. One study suggests that the threat of litigation has resulted in difficulties for midwives supporting low-intervention birth and over-reliance on technology to prevent perceived adverse outcomes (Hood *et al*. 2010). Midwives working in the hospital setting in Australia believe they have become institutionalised and increasingly risk adverse such that they perform interventions when requested by obstetricians despite disagreeing with them (Seibold *et al*. 2010). Irish midwives believe that the ability to manage birth in a medical manner is prioritised as a skill in obstetric-led settings (Keating and Fleming 2009). Similarly, a Swedish study proposes that midwifery skills are often looked upon with disdain or as competing directly with safety (Larsson *et al*. 2009).

The perception of birth as risky and requiring medical surveillance is contributing to a service that relies on technology, intervention and surveillance to achieve ‘safe’ outcomes. Risk management is no longer fulfilling its role of protecting women and babies from harm but is linked to intense surveillance of birth. While professionals and organisations see this as protecting themselves it does not always serve the women in their care (Healy *et al*. 2016, Scamell and Stewart 2014).

Aim of study

The aim of this study was to understand midwives' and obstetricians' perceptions of risk regarding low-intervention birth and investigate how this affects decision-making. This study adds to the limited literature directly concerned with the effect of risk perception on decision-making in labour. To our knowledge this topic has not been researched in the Irish maternity setting and, as such, the findings will add to the evidence currently available. This is timely in the Irish context, linked to the publication of the new Irish maternity strategy (Ireland, Department of Health 2016) which addresses issues including midwifery-led care, choice and woman-centred care as key principles. This paper sets out findings related to how risk perceptions affect the role of midwifery in the current maternity services. A further paper will explore other aspects of risk.

4.3 Study Methodology

Design

A qualitative research design was chosen for this study as an emphasis on meaning, context and experience were considered essential to the research aims. The research design incorporated a pluralistic approach that considered elements from different methodologies and drew on Interpretive Description (ID) (Thorne et al., 1997, Thorne et al., 2004) and Grounded Theory. ID is a methodology that extends beyond description into the domain of interpretive explanation, seeking to discover associations, relationships and patterns within and between the described phenomena (Thorne 2016). The principles of Grounded Theory guided certain methods. This is evident in that these data are grounded in context, data saturation were achieved and there was an ongoing reflexive approach to data analysis. The intention of this study was not to develop new theory and hence a pure Grounded Theory approach was not adhered to.

There is consensus that combining methodologies rather than resolutely subscribing to one absolute approach can enhance knowledge development if the researcher can justify decisions made when selecting methods from different methodologies (Whittemore *et al*. 2001, Carter and Little 2007). Thorne (2011) supports a pluralistic approach to knowledge development in qualitative inquiry, particularly for the nursing profession who often focus on complex experiential problems, not always best served by traditional approaches. It is the belief of the researcher that this also applies to the

midwifery profession. The underlying epistemology for this study is based on the theory of social constructivism and is reflected in the research design. This theory argues that situations are not inevitable but are based on jointly-constructed understandings, created through social interaction and influenced by factors including culture and social context (Burr 2015). The following section describes and justifies the methods used to carry out the study.

Sampling and Recruitment

A purposive sampling technique was applied as this technique enables the researcher's knowledge of the population and its characteristics to be used to recruit cases for inclusion in the sample (LoBiondo-Wood and Haber 2006). As such, the researcher's knowledge of the maternity services was used in the selection of participants considered typical of the desired population. The primary researcher in this study is a registered midwife who works part-time in an obstetric-led unit. Recruitment did not take place in this unit to avoid a conflict of interest but the primary researcher did her midwifery training in one of the obstetric units used to collect data. She has a personal interest in homebirth and has recently become involved in community midwifery on a part-time basis.

Participants were recruited from a variety of professional grades, settings and models of care. This was to provide a comprehensive picture of the topic under investigation as context was considered an important influence on healthcare professionals' perceptions of risk. A variety of strategies were used in actual recruitment. This included meetings with senior personnel (directors of midwifery, clinical obstetric leads) to gain access to the settings (see types of setting in Table 4.2) and posters to make potential participants aware of the study. This was followed up with group meetings where the study was explained to interested participants. Midwifery managers, community midwives and obstetricians did not attend any of these meetings so a selection of these groups were targeted directly by email. An email was sent to all for whom an email address could be obtained. From these approaches, 25 participants were recruited for interviews (see Table 4.2 for participant details and Table 4.3 for inclusion/exclusion criteria). Recruitment and interviewing continued until the researchers were satisfied that data saturation was achieved i.e. when judged that further interviews would not yield new insights to the subject under investigation.

Table 4.2: Participant and setting details					
Participant ↓	**Setting →**	Unit A: Obstetric-led unit with alongside midwifery-led unit	Unit B: Obstetric-led unit	Unit C: Obstetric-led unit with DOMINO service	Community homebirth service
Obstetricians[a]:		2	2	5	
Midwifery management[b]:		1	3	2	
Midwives working in obstetric-led models of care		1	3	1.5[c]	
Midwives working in midwifery-led models of care		2	0	0.5[c]	2[d]

[a] Consultant level (n=6), registrar level (n=3). Grade of profession is not distinguished within units to protect participant identity.

[b] Managers working directly with women in a clinical setting (n=3), working indirectly with women in a clinical setting (n=2), practice development midwife (n=1). Type of management is not distinguished within units to protect participant identity.

[c] The 0.5 and 1.5 figures reflect one midwife who works between an obstetric-led and midwifery-led model of care

[d] Both community-based midwives previously worked in obstetric-led units within 2 years of data collection

Table 4.3: Inclusion and exclusion criteria for participants
Inclusion Criteria for Participants
Must be currently working in a birthing environment i.e. labour ward, homebirth setting, birthing room of a midwifery-led unit
Have at least six months' experience working in their current birth environment
Have at least six months of experience in their current role
Must be either a:
Midwife in a clinical or managerial role
Registrar obstetrician
Or
Consultant obstetrician
Exclusion Criteria for Participants
Midwifery or medical students
Obstetric SHOs (Senior House Officers)

Data collection

Data were collected by the main author, using semi-structured interviews, arranged at the convenience of the participant. This method is in line with the social constructivist theory where participants' attitudes are not considered pre-determined but are revealed through the emergent conversation (Flynn 2005). All but two of the 25 interviews were carried out in the hospital or midwifery-led unit. Community midwives chose to be interviewed at home. Interviews lasted from 30 to 70 minutes. An interview guide comprising open questions, based on a theoretical fore-structure as proposed by Thorne (2016), guided the discussion (see Table 4.4). The theoretical fore-structure consisted of an extensive systematic review of existing literature (Healy et al 2016) and a reflection on theoretical, professional and personal bias. The literature review revealed that midwives have moved away from their philosophical belief that birth is a normal life event to an assumption that birth is abnormal and laden with risk. Questions in the interview guide sought to understand this phenomenon in more detail and to investigate if midwives and obstetricians had similar attitudes to the importance of achieving normal birth. The questions implicitly rather than explicitly asked about risk so as not to bias participant answers. Three pilot interviews were conducted with midwives prior to the main study but were not included in the final sample. All interviews were audio recorded with consent and transcription was performed by the main author.

Data Analysis

Data were analysed thematically using Yin's five step process for qualitative data analysis (Yin 2011) – see table 4.5 for the steps undertaken in data analysis. Analysis commenced after the first interview and emerging preliminary results guided recruitment. All three authors were involved in data analysis. While it may have been beneficial to highlight the differences between the views of different grades of professionals these data were not analysed separately due to the limited numbers of maternity professionals working in Ireland. It was felt that participants would have been easily identified if data from each grade was analysed and reported separately.

Table 4.4: Interview Guide
1. There are concerns that birth is becoming increasingly medicalised. What is your view in relation to this?
2. Can you tell me about issues that might influence your decision-making when working with low-risk women in labour?
3. Do you think the issues of safety and risk are a dominant influence on practice? Can you give me any examples?
4. In your opinion, what are the views of the healthcare professional team on achieving normal birth?
5. Can you give me examples of what measures exist that have prevented normal birth in your unit/practice?
6. Do you feel that you base your practice on the best evidence available in relation to low-risk women in labour? If so, can you give an example of this? If not, what do you think affects your ability to practice evidence-based care?
7. Do you feel that your unit bases its practice on the best evidence available in relation to low-risk women in labour? If so, can you give an example of how this is achieved? If not what do you think affects the ability of the unit to practice evidence-based care?
8. Are there key differences between the attitudes of midwives and obstetricians regarding physiological birth? Can you elaborate on this drawing on specific examples in your experience?
9. In what ways does continued professional development impact on your decision-making and practice when caring for low-risk women in labour?
10. In your experience what are the factors that impact women when choosing a place for birth?

Table 4.5: Yin's five stage process for qualitative data analysis	
Step 1: Compiling	Involved the compilation of a database in NVivo 11. Interviews were listened to and transcripts read several times with general notes made on emerging themes.
Step 2: Disassembling	NVivo 11 was used to code interview data. The method of data analysis borrowed elements from grounded theory and involved open coding of all text into short segments of code. This was level one coding and assigned descriptive codenames to all codes. Level two involved assigning higher analytical codenames to the descriptive codes
Step 3: Reassembling	Connections were made between ideas/concepts coded and higher-level analytical categories were developed. Categories were subsequently synthesised to form themes. Emerging themes were refined and verified on a continuous basis with all three authors. Bias was minimised by continuously re-engaging with the data to reveal negative instances.
Step 4: Interpreting	This commenced with interpretation at level 2 open coding and continued through to interpretation regarding theme formation.
Step 5: Concluding	This entailed the assignment of further meaning to the data through discussion of the findings within the broader literature.

Ethical considerations

Ethical approval was granted by three relevant ethics committees in the local Health Services Executive. Interested participants were provided with an information sheet on the study prior to interview. At the interview stage, the study was explained again and participants had an opportunity to ask questions before they signed a consent form. All participants were informed they could withdraw from the study at any time but none did. Privacy and confidentiality were ensured by assigning codenames to participants and any identifying data was removed from quotes used. Data were securely stored on a password encrypted computer in a locked office. Consent forms were stored in a locked cupboard in this office.

Originally the study sought to carry out observations in the settings to further inform the inquiry but ethical approval was denied for this element. The reason given for this was that gaining informed consent from all involved (women and healthcare workers) would prove too difficult.

4.4 Findings

These findings suggest midwifery is assuming a peripheral position regarding normal birth as a progressive culture of risk and medicalisation affects the provision of maternity care. Midwives are professionally recognised as the experts in normal birth but this role is either not apparent or diminishing as obstetrics is increasingly prominent in normal birth. Our findings suggest that midwives themselves contribute to this; they operate at a level of sub-optimal professional accountability and autonomy to avoid implication in adverse outcomes. These points are developed further in four subthemes: (1) Professional autonomy and hierarchy in maternity care; (2) Midwifery-led care as an undervalued and unsupported aspiration; (3) A shift in focus from striving for normality to risk management; and (4) Viewing pregnancy through a 'risk-lens'.

Professional autonomy and hierarchy in maternity care

Midwives in this study believe the obstetric profession has power over decision-making in care organisation and delivery for both high and low-risk women.

> *'If you have somebody who comes here (labour ward) in labour or for assessment, as a midwife you still have to defer to the registrar on-call or the consultant on-call before say you would send a woman back to the ward ... Sometimes your hands are tied a little' [OLU (obstetric-led unit) midwife 5]*

As well as reflecting the situation in obstetric-led care, as illustrated in the quote above, midwives working in midwifery-led care models felt that important areas of decision-making were under obstetric control. They experienced similar frustrations to those working in obstetric-led care.

> *'Unfortunately, our mums will have to be released by an obstetrician to come through the DOMINO scheme [midwifery-led programme] at 20 weeks. I think it is totally unnecessary ... I think we are all capable of making our own decisions. So that's just the way it is and we have to get it off the ground.' [OLU (and MLU) midwife 4]*

The hierarchy of decision-making was evident in discussions on the value of retaining the admission Cardiotocograph (CTG) for low-risk women admitted in labour. This is a routine intervention that is not evidence-based.

> *'[to keep] the admission CTG. That was an obstetric decision, consultant obstetrician decision. It's not one I believe every midwife believes in and even like the NICE guidelines outlay, that it is not appropriate for low-risk women, but we still do it.' [OLU midwife 6]*

The perception is that obstetrics has become more powerful, with decisions unrelated to care also dominated by consultant obstetricians. Acceptance, resignation and reluctance by midwives to challenge such decisions were in evidence, linked to the dominance of obstetric-led care.

> *'It is consultant led, you know, even decisions around offices, or storage, or anything like that ... it's becoming more and more and more consultant-led and I do find myself saying fine, you know, if that's the way it is, how can I fight this system?' [OLU midwife 2]*

An obstetrician that had previously worked in another country made the following observation:

> *'... they [midwives] are much more tolerant than I would expect them to be, or I would be if I was a midwife, of interference in normal births.' [Obstetrician 1]*

The hierarchy in relation to decision-making may be attributed in part to the organisation of care where most women, irrespective of their risk status, are under the care of a named obstetric-lead. Both midwives and obstetricians agree that obstetrics is increasingly and unnecessarily involved in both the planning and provision of care for low-risk women.

> *'I think obstetricians should just clear out and have a corner of the hospital where you do have high-risk women that need help.' [MLC (midwifery-led care) midwife 4]*

> *'I think 95% of the women I see at the antenatal clinic don't need to see me. They would be just as well-off seeing the midwife from the very beginning, because a lot of what we see is normal antenatal care.' [Obstetrician 2]*

The majority of obstetricians in this study identified that they have skewed perceptions of risk as a result of only becoming involved in birth when it has become abnormal. For this reason, they agree they may not be the most appropriate profession to be the lead carer for low-risk women.

The perception amongst both midwives and obstetricians is that many midwives do not want autonomy, nor to take on the role of lead carer for low-risk women because they are fearful of being accountable for decisions and implicated in adverse outcomes.

> *'I don't feel midwives necessarily are empowered enough ... to manage completely low-risk women. ... Sometimes I feel they just don't take pride in their role as a midwife and the huge kind of responsibility they have as a midwife as well is to promote and advocate to their patient that they are low-risk and sometimes I feel particularly in the labour ward and in the early hours of the morning that I am nearly talking midwives out of having to intervene or section almost because they don't just want to be there in case anything goes wrong and it's not necessarily a risk at that point in time, do you know what I mean?' [Obstetrician 5]*

Linked to this, we find that midwives sometimes over-refer to doctors for potential problems, often because midwives want reassurance from a doctor.

> *'I suppose it's so, it's hard to be confident enough to know what you are doing is right … whereas, it's easier to nearly get someone else to make that decision for you.' [OLU midwife 3]*

One obstetrician commented on the capability of midwives but noted how they were reluctant to take ownership of decisions.

> *'I think they want to be more autonomous, but I don't know whether if it's the whole culture of nursing and midwifery in general in Ireland or whatever, but … I think there is definitely some who would be well capable of managing lots of stuff that we do, but they don't get the chance because they feel they have to run it by somebody.' [Obstetrician 4]*

Midwives and obstetricians recognise problems in the way care is organised and delivered and that this impacts on midwives' professional autonomy and responsibility for decision-making. While there is frustration with this situation, midwives are accepting of the *status quo* while obstetricians perceive it as a midwifery issue and not within their remit.

Midwifery-led care as an undervalued and unsupported aspiration

Recognition that midwifery-led care is severely lacking in maternity services is attributed to a perception by both obstetricians and midwives that the medical model can reduce risks of litigation. The impression from these data is that development of midwifery-led care is supported by certain individuals but not by hospital organisations as a whole. Certain midwives in favour of midwifery-led schemes perceive that funding for this is never going to be a priority. Where such schemes exist, interviewees, including one obstetrician and several midwives, believe it is undervalued and often unsupported by both the midwifery and obstetric professions.

> *'It's an unfortunate position that some DMOs [Designated Midwifery Officers – who act as liaison officers between the Health Service Executive and women seeking a homebirth], I don't think, chose to be in that role and that's a real disappointment because it could be a really, should be a really key role in*

developing an area [homebirth], in developing midwives and supporting them.' [MLC midwife 5]

'No one's been pushing the DOMINO service and some consultants actively discourage the home delivery service and are quite vocal about it.' [Obstetrician 1]

Lack of support is partly attributed to mistrust of this model of care as well as a belief that birth quite often requires medical involvement. Overall, there is greater trust in midwifery models of care located alongside a hospital and a sense of unacceptable risk regarding birth that is not in close proximity to medical equipment and personnel.

'You have an emergency call bell to get additional people. I think it would take nerves of steel to work in independent birth centres' [MLC midwife 2]

Where midwifery-led care was established, this was connected with the development of a trusting relationship between midwives and obstetricians.

'It took a while for the doctors to realise that there is room for them and us.' [MLC midwife 1]

'I think a midwifery-led system works well here. I don't think it's working well in [place name deliberately omitted] as I don't think there is the same degree of trust between midwives and the consultants as here.' [Obstetrician 8]

While there are different levels of support for midwifery-led care some obstetricians believe there is too much focus on who is leading care and not enough on woman-centred care. One obstetrician particularly noted that midwives may be more focussed on the measure of their input into care rather than on the woman.

'My biggest issue about this is that there is a little bit too much discussion to do about models and not enough discussion about … patient-centred care. Actually, no, sorry can I change the term, woman-centred care is what we regularly hear about but actually to be honest, when I sit it in at any of these discussions, the woman at the centre of the care commonly, sadly, is the midwife and not the patient.' [Obstetrician 3]

While there appears to be good rapport between midwives and obstetricians at an individual level, there was a sense that midwifery as an autonomous profession cannot

be trusted completely, particularly midwives working in the community. Midwives feel that obstetricians do not always completely trust their decision-making and obstetricians perceive that midwives' desire for low intervention or normal birth may at times outweigh concerns for safety.

> *'I just wonder sometimes, is it because they don't trust either the midwives with the intermittency of the monitoring, I'm not sure.' [OLU midwife 7]*

> *'Some of the practices have been dangerous [at homebirths] ... they definitely push things further than we would in a hospital setting.' [Obstetrician 6]*

Drawing these findings together, an essential antecedent to supporting and valuing midwifery-led care is trust. Midwifery-led care can thrive and contribute to change when there is a relationship of trust between the professions and safety is assured. However, the findings of this study show there is a perception that the current focus for change is narrowly aimed at promoting midwifery-led care and not sufficiently focused on women-centred care as a key principle. On the other hand, midwives' frustration at the lack of organisational support for midwifery-led care is evident from these findings and should be acknowledged.

A shift in focus from striving for normality to risk management

This theme suggests that the focus in institutional, medicalised settings is not particularly on achieving the best outcome with the least amount of intervention but more on implementing and maintaining approaches, including administration duties, which contribute to risk management. The effects of this on midwifery and normal birth is the emphasis of this theme.

The perception of the negative impact of a predominantly medical culture on achieving normal birth within obstetric-led units is portrayed by a midwife involved in practice development.

> *'I think the midwives have got a focus on normality and are very clear about what they need to do ... but I think the medical culture is really, there is probably a very nice word like clamping down or hindering them from actually progressing that normal culture.' [OLU midwife 10]*

This situation is compounded by a lack of appropriate leadership in midwifery. Midwives, including one midwifery manager in particular, perceive that midwifery

managers are often unavailable to support midwives in the labour ward as administration tasks increasingly take over, removing their expertise from clinical decision-making.

> *'I think our clinical managers here have a huge role in lots of different areas and they have lots of meetings to go to, they have lots of admin work to do and it means that they are not readily available to the junior midwives.' [OLU midwife 4]*

The administration and risk management burden was also seen as problematic for clinical midwives by removing them further from woman-centred care. This is so much the case now that it was suggested that this role be taken on by another profession.

> *'I think everyone should have a doula because midwives now are so pre-occupied with technology and paperwork. Because, you know, sometimes I find that in the hospital you try to be there for the woman and yet you are trying to keep up–to-date with your notes ...' [MLC midwife 4]*

> *'Actually, that is one of the things that I find has really affected my practice and I resent it. There is so much writing everything, you know, at the beginning when you admit a woman and you review her history and introduce yourself and do all the things you have to do and then you are supposed to write all that' [OLU midwife 6]*

The findings of this study present a picture that as birth becomes more medicalised and clinical care practices more risk-oriented there is limited exposure to physiological birth and 'waiting and watching' type of care in obstetric-led units. There is awareness amongst midwives that this has a direct effect on midwifery knowledge and on gaining the experience necessary to become experts in normal birth.

> *'A lot of the time here you are only seeing obstetric [medicalised approach to care] ... It's very hard to even imagine a woman could have a baby by herself without needing some intervention' [OLU midwife 3]*

Lack of exposure to normal birth and expectant rather than interventionist care is seen to particularly affect professional development of student midwives.

'they are growing up in a medical environment … the students are learning from girls that came through this [medicalised] system as well, so it's snowballing and what we used to have is slowly fading away.' [OLU midwife 4]

There is a perception that experience of working in midwifery-led care can help midwives to trust physiological birth but this requires adjustment to working with a different approach.

'you do see some of them [midwives] going upstairs [to midwifery-led unit] for a stint and coming back down here and they are much more like laid back, kind of treating women as more normal ... because they have seen the normality for maybe a few months, that it's kind of more instilled in them. When you are here all the time, you kind of lose it a little bit sometimes along the way I think.' [OLU midwife 11]

A community midwife describes having to relearn midwifery skills on commencing her work with homebirths.

'I've been learning just how to sit on my hands and let them be. I haven't been needed in the way that I perceived myself to have been needed before … I don't always have to be in the room. I can be just around the corner listening ... and I have been astonished at how little I've been needed.' [MLU midwife 1]

Along with a lack of exposure to normality in medical settings, our findings indicate that training is lacking to support midwives in facilitating physiological birth. While study days to promote normality were encouraged within the MLU, midwives working in obstetric units noted these are a rarity and focus is on obstetrical emergency training.

'you know, there is an awful lot of study days and continual development that we have to do, but they all manage high-risk … maybe if there could be days all about the natural (facilitating physiological birth) and you know, telling younger midwives that it's okay for certain things [not have an admission CTG] to happen' [OLU midwife 4]

When midwives did attend study days on promoting normality they reported the positive effects.

'I was just heartened by it' [OLU midwife 6]

Despite recognition that experience and training in normality and midwifery-led care can make a difference, the findings indicate that midwives are not actively seeking solutions to the problem. This is reflected in their apathy to seeking study days that could support them in facilitating normal birth and in utilising existing facilities that support normality such as the 'homebirth room'. When asked what facilities exist to promote normality midwifery interviewees identified aids such as birthing balls and did not seem to have any deep sense of how they could contribute to change.

This theme highlights that achieving normal birth does not appear to be a priority in obstetric-led units in this study. While midwives recognise the importance of normal birth the lack of specific supports for it, such as education and leadership, was apparent. Midwives appear to have accepted the decline of normal birth as inevitable and as a result are not actively seeking solutions to protect it.

Women view pregnancy through a 'risk-lens'

The findings show a perception amongst midwives and obstetricians that many women view pregnancy and birth through a 'risk-lens'. They believe women often expect pregnancy to be a medical experience with significant medical input to care.

> *'The vast majority of normal healthy women who would be suitable for that model of care [midwifery-led model] still want obstetric involvement.' [Obstetrician 1]*

The organisation of services, including involvement of obstetricians in the care of all women, compounds this.

> *'I think more and more people are being seen by a doctor and that is very much changing that patient, and generally the public perception, of what is normal and then they almost assume there is something wrong [that pregnancy is an illness].' [Obstetrician 5]*

There is a perception that many women may not understand and as a result may not value midwifery input. Several participants, both midwives and obstetricians, believe that women are generally unaware of midwifery services and have little access to midwives to source information early in their pregnancies. Promotion of midwifery care was perceived by one obstetrician in particular to be vital in improving women's uptake of these services and in fostering normality around birth.

'... if we are seen to have poured resources into midwifery-led care I think it might give women the impression that it actually is safe and is a really good idea' [Obstetrician 5]

However, it is questioned by both professions whether women will tolerate a dominant model of midwifery-led care as women seem to place greater trust in doctors than midwives. The perception is that most women are not concerned about what model of care they receive as long as the outcome is good.

'I feel that the view out there is that the doctor knows everything and the doctor is best and that they [women] believe the obstetrician.' [OLU midwife 2]

'Is that enough for the majority of our patients or will they want to get scanned as well and meet the doctor and so on. And again, it comes down to - women will do anything to have a very safe outcome' [Obstetrician 7]

Community-based midwives and those working in an MLU noted, however, that when women experience midwifery-led care they understand and appreciate it.

'So, there are women out there that understand about midwives, midwifery-led. And the moment they experience it, you know ... they use that language. They like it, they buy into it and they start mirroring what they're seeing and what they're receiving.' [MLC midwife 5]

In summary, women preparing for, and giving birth may not be aware of the benefits of midwifery and midwifery-led care. Compounding this is the perception that women favour obstetric care in general but may only realise the benefits of midwifery-led care when they experience it.

4.5 Discussion

The findings from this qualitative study suggest that birth is strongly embedded in the medical model of care in the Irish setting. This is apparent in the continued hierarchy of obstetrics within maternity services where doctors are the lead carer for most pregnant women, despite objections from the obstetric profession about the appropriateness of this arrangement. Midwifery-led care can be undervalued and unsupported leading to limited opportunities for midwives to practice skills to facilitate normal birth and limited choice for women. Based on views articulated by professionals, women themselves are buying into the medical discourse, restricting their experience of

midwifery-led care in labour and this is also a contributing factor. A key finding from this study is that midwives, while acknowledging the value of normal birth, may be resigned to the medical model of care despite perceiving it as restricting normal birth.

The recent publication of the first maternity strategy in Ireland (Ireland, Department of Health 2016) provides a useful framework in which to view these results. The new maternity strategy proposes three care pathways for women depending on their risk status. The first pathway, named 'supported care' recommends that low-risk women be cared for by midwives with the input of other professions if necessary. The second pathway, named 'assisted care' is for medium-risk women who will be under the care of a named obstetrician and have midwifery input in a hospital setting. This pathway will also be available for low-risk women who choose to have an obstetrician as their lead carer. While this gives the appearance of increased choice, in reality it is perpetuating the medical model by suggesting that this pathway is as suitable for low-risk women as the 'supported care' pathway. It may also reflect the difficulty in changing from the current situation, resulting in obstetric-led care remaining the dominant option or choice for women. Complicating this is the two-tier level of care in Ireland whereby private obstetric practice ensures that a large proportion of women may not have contact with a midwife in their pregnancies. Research (Byrne *et al*. 2011, AIMS Ireland 2015) suggests that women want choice but the data from this study illustrate that the professions believe women may not tolerate a dominant model of midwifery-led care. This perception may stem from not having developed relationships with women that could aid understanding of what they really want. It appears lip-service is paid to 'choice' but no one is pushing this agenda. The strategy promotes giving impartial advice to women on maternity care options but does not suggest strategies for increased education to help women make an informed choice and hence have an opportunity to experience midwifery-led care. Our study confirms that many women may subscribe to the medical model of childbirth until they experience midwifery-led care. If midwifery-led care is to make any strides within maternity services, consumers of this care – women - must be more aware of its advantages but midwives must also be interested in leading the changes to bring it about.

Pollard (2003) suggests we must educate society about midwifery autonomy or else 'let it go' and accept the medical model. While educating society may be important, the findings of our study suggest that it is crucial that midwives practice midwifery autonomy so that women actually experience it and thus realise the benefits. In our

study, midwives, including midwifery management, sometimes accept the practice of unnecessary interventions at the direction of the obstetric profession. This raises questions about the identity of a professional midwife, specifically, whether they are capable of working autonomously or are content to let other professions take over their role. Our study suggests that midwifery loss of autonomy may be a self-fulfilling prophecy – i.e., midwives are resigned to it – and other professions will fill the gaps if the profession does not step up to the challenges it faces. Previous research suggests that midwives often require validation of their clinical judgements from the medical profession (Jefford *et al*. 2010). Our findings verify this as midwives tend to over-refer to obstetricians to protect themselves from implication in adverse outcomes. This suggests midwives don't actually see themselves as experts in normal birth. Recent research by Scamell (2016) highlights the difficulties for midwives who are committed to normal birth. This study proposes that midwives are too easily diverted from this commitment by organisational risk operations and that concerns about risk outweigh concerns for normality.

While the new Irish maternity strategy calls for an increase in midwives and midwifery-led care it does not stress the specific role of the midwife. The UK policy report, Midwifery 2020: Delivering Expectations (Chief Nursing Officers for England, Wales, Northern Ireland and Scotland Childbirth 2010), acknowledges the importance of midwifery input into maternity care by promoting the midwife as the first point of contact for all women accessing maternity services. The Irish strategy continues to promote the General Practitioner as the first point of contact with midwives having no visibility in the community for early pregnancy. Our study highlights how obstetricians as well as midwives are frustrated by obstetrics being involved with all women antenatally as well as obstetric over-involvement in normal birth. Previous research indicates that the dominant medical model can drive risk management in maternity care, creating obstacles in implementing strategies to increase midwifery-led care and normal birth (Walton *et al*. 2005). Despite the growing body of evidence on safety of midwifery-led care it may be difficult to implement unless there is strong support from medical practitioners (Brodie 2002). There were suggestions that it should be removed from medicalised settings as midwives facilitating intrapartum care in hospital settings, whether it be obstetric-led or midwifery-led, cannot extricate themselves from the dominance of the medical model (Freeman *et al*. 2006). This may be difficult in Ireland as the new strategy does not recommend free-standing birth centres but advocates for

alongside midwifery-led units that remain under the governance of the 'Mastership' or similar system. The 'Master' is both CEO and Lead Consultant Obstetrician of the hospital and retains overall corporate and clinical responsibility. The strategy has deemed the 'Mastership' a suitable governance model resulting in midwifery-led services being ultimately governed by a medical model.

Our study implies that while many midwives may be frustrated by medical dominance they have accepted the *status quo* by failing to actively engage in seeking alternatives to supporting normality. The increase in midwifery-led care, proposed by the strategy, would be a significant change for the profession of midwifery in Ireland and expecting midwives to take stronger lead roles without increased exposure to this model may be naive. Failure to address this issue will ensure that midwifery-led services will not thrive. Fortunately, the new strategy has identified that undergraduate programmes will need to respond to the changing nature of midwifery practice. This is welcome as student midwives in Ireland only very recently are required to have experience of midwifery-led continuity care models as part of their training (O'Connell and Bradshaw 2016).

Our study highlights a lack of focus on woman-centred care. Woman-centred care has become a widely recognised concept in midwifery discourse that encompasses empowerment for women and individualised care that places the woman's needs ahead of those of the institution or the professionals (Leap 2009). This prevailing discourse, which was originally welcomed as an antidote to the medicalisation of birth (Carolan and Hodnett 2007), is at odds with our findings i.e. midwives appear to be more aware of how the medical model has affected their position rather than how it affects women. Previous research suggests that woman-centred care may be difficult to achieve when midwives make bureaucratic decisions based on adherence to written policies and procedures as opposed to collaborative decision-making with women (Porter *et al*. 2007). A recent UK study on partnership revealed that women perceive midwives to be just 'ticking the box' and are unable to meet their psycho-social needs as time constraints only allow for physical checks (Boyle *et al*. 2016). Our findings similarly show that midwives are overwhelmed by administration duties, with the burden of documentation compromising capacity to facilitate woman-centred care. Townsend *et al*. (2003) suggest that institutional dominance may prevent healthcare professionals from truly participating in client-centred by a dominant managerial culture of efficiency and a dominant professional culture. They question whether healthcare professionals

can fully understand client-centred care when working within an institution as it prevents them from working in the context of people's lives. Despite acknowledgement that working as a midwife can be a complex process where one is required to act as an advocate for the woman and promote midwifery philosophy while also conforming to a medical approach (Pollard 2011) our study highlights that midwives may be resigned to the current situation and are slow to act to change it. It was felt they perceived it to be outside of their control or as someone else's responsibility to make changes. This view may be compounded by the rise in organisational risk management that is shifting away from individual decision-making towards models of clinical governance to manage risk. Within this model, midwives may increasingly feel that they have little impact on how decisions on care are made.

The findings from this study imply that midwives are sometimes relieved to not have to make certain difficult decisions while facilitating care for labouring women. The rhetoric of midwifery-led care, including autonomy and woman-centred care, does not appear to be aligned with reality. It appears that this cannot become a reality until midwives make a stand and become comfortable providing true woman-centred care whether this be in an institutional setting or in the community.

4.6 Conclusion

Our interpretation of the findings of this study is that the hierarchy between the professions of obstetrics and midwifery is a simplistic explanation of why midwifery-led care and normal birth are diminishing in maternity services. The hierarchy is in the way birth is framed. Currently within our maternity services, birth viewed through the lens of medicalisation is firmly at the top of the hierarchy and midwives are often resigned to this. The medicalisation of birth is not only endemic within the maternity services but also in wider society. This has an enormous impact on maternity care including routine and often unnecessary use of intervention and technology.

For midwifery professional identity there are far-reaching consequences. Autonomy, a cornerstone of midwifery philosophy, has been almost completely relinquished within obstetric-led care. Many midwives have never experienced facilitation of birth outside of the hospital environment and hence do not truly understand autonomy. This has completely altered how midwives think and operate, leaving very few in the position of defending normality and trust in birth. To change this situation, the planning of maternity care must provide care options that are distinct from medical jurisdiction and

opportunities and education for midwives to take a lead role. Midwives must be the profession to take on this role because their distinct identity, as it now stands, is in jeopardy. If the midwifery profession has the courage to take on this responsibility, there is some chance of creating services that are true to the woman-centred care philosophy.

Study Limitations

While this study attempts to understand perceptions across a variety of maternity units and settings, the findings cannot be generalised. The findings relating to women's perceptions are not the views of women but of professionals working with women. In keeping with qualitative research, the interpretation of data will be subjective. However, the process of analysis involved on-going review by all three authors to arrive at our conclusions and to achieve consistency in interpretation of these data.

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Chapter 5: Paper 4

Paper 4 – Challenges in balancing risk with 'care' in maternity practice: A qualitative study of midwives' and obstetricians' perceptions of risk

5.1 Abstract

Background: In obstetric-led, technocratic models of care there is a belief that risk can be mitigated through scientific knowledge and intense surveillance of pregnancy and birth. This has contributed to rising intervention rates and reduced numbers of physiological births.

Methods: This study was guided by a pragmatic qualitative design, integrating elements from Interpretive Description and guided by certain principles of Grounded Theory. Participants included 16 midwives and 9 obstetricians, recruited from three maternity units in Ireland that included obstetric and midwifery-led models and from the community. Data were collected using semi-structured interviews. Thematic analysis was the chosen method for data analysis.

Results: Four themes were derived from the data – (1) Working with birth is risky and stressful; (2) Challenges in balancing intervention and risk with self-preservation; (3) Limited resources contributing to an inability to counteract irrational risk; (4) Outcomes-driven model dominant in maternity services. These themes illustrate how individualised risk assessment and care often appear to be subordinate to the pursuit of positive clinical outcomes, particularly perinatal and maternal mortality rates. This has the result of lessening the 'care' aspect of maternity provision. Contributing to this, formal reflection on risk is neglected and has resulted in maternity services where obstetricians and midwives are working defensively.

Conclusions: The principles of choice and woman-centred care cannot be operationalised when the priority for healthcare professionals and maternity care institutions is on self-protection and achieving narrow and specific clinical outcomes to the detriment of 'care'. Individualised care, although enshrined in policy, needs to become a reality for women and their families.

Highlights

- The pursuit of positive clinical outcomes is to the detriment of 'care'
- Formal reflection on risk and how it impacts care is neglected
- Limited resources are contributing to an inability to counteract irrational risk
- Working in maternity care is perceived as risky and stressful
- Midwives and obstetricians are often working defensively

Keywords

Childbirth; midwives; obstetricians; outcomes; risk; woman-centred

5.2 Introduction

Risk is a relatively modern concept within maternity care, reflecting the progress of risk thinking in wider society (Scamell 2014). Maternity care, in many instances, has moved from an acceptance of the uncertainties and inherent dangers surrounding birth to a process where risk must be mitigated, sometimes at the cost of restricted autonomy and choice for women. Increasingly, mainstream birth has tended to become entrenched in a technocratic, medical model where there is a belief that risk, typified in this model as an objective phenomenon, can be controlled through scientific knowledge and intense monitoring of pregnancy and birth (MacKenzie Bryers and van Teijlingen 2010). Policy in the United Kingdom (UK, Department of Health 1993, UK, Department of Health 2007), dating back over 20 years, has supported a move back to a social model of maternity care (anticipates normality and views risk as relational and subjective) but arguably there has been little significant change in this regard (Scamell 2014).

Intensifying the risk debate is that while birth outcomes have improved, intervention rates during birth continue to rise with normal delivery in decline, a trend in many high-income countries (Birthchoice UK 2017, Healthcare Pricing Office 2016). Routine use of interventions that are neither necessary nor evidence-based, such as an admission CTG for low-risk women, is contributing to this (Smith *et al*. 2012). This may be because of healthcare professionals' fear of litigation and implication in adverse outcomes, leading to defensive, over-cautious decision-making (Hood *et al*. 2010). Midwives are under pressure as they are required to facilitate and promote normality during birth but simultaneously negotiate a series of risks and risk management strategies (Scamell and Alaszewski 2012).

Research has identified that women who birth in social, midwifery-led models of care are more likely to be satisfied with their care but have significantly less intervention than their hospital counterparts with similar perinatal outcomes (Begley *et al*. 2009, Brocklehurst *et al*. 2011). Despite this, most low-risk women continue to birth in obstetric-led units in many developed countries including Ireland, the UK, Australia and Canada (Ireland, Department of Health 2016). The Netherlands appears to be an exception to this with up to 20% of women birthing at home and an additional 11% in midwifery-led clinics (Centraal Bureau voor de Statistiek 2015). This has been attributed to social policy in the Netherlands that protects the autonomous identity of the midwife (De Vries *et al*. 2013).

Contributing to high levels of obstetric-led care may be women's perceptions of maternity care. Many women believe in the necessity of medical intervention and surveillance in birth and may have little understanding of midwifery, favouring obstetric input (Healy *et al*. 2017). It is proposed that perceptions of risk are always socially- and culturally-mediated and that action taken in response to potential risk will be directly related to the social acceptability and tolerance of this risk (Scamell 2016). This has the effect of constraining women in their decision-making by a societal sense of blame, pressurising them to make the 'correct' and responsible choice (Coxon *et al*. 2014). Previous research demonstrates that many women may perceive birth as medically risky and hence choose hospital-birth, under the care of an obstetrician, as the safest model of care (Houghton *et al*. 2008, Coxon *et al*. 2014). The very reassuring low rates of perinatal mortality (Health Pricing Office 2016) may be perpetuating the *status quo* of the medical model with a focus on outcomes rather than processes of care (Healy *et al*. 2016a).

Risk appears to be a complex issue for both women and healthcare providers when making decisions related to birth and this seems to be a contributing factor in rising intervention rates. This study aims to gain a deeper understanding of how midwives and obstetricians' perceptions of risk are affecting their facilitation of care for low-risk women and normal birth. It seeks to investigate the effects of context on risk perceptions and explore why the current situation of maternity care provision is slow to change. An additional paper (Healy *et al*. 2017) has already published separate results related to this study and explores the issue of how midwifery professional identity is being shaped by risk.

5.3 Methods

A qualitative design was chosen for this study as meaning and context were considered essential to answering the research question. Social constructivism formed the theoretical epistemology underlying the study arguing that situations are created through social interaction and influenced by factors including culture and social context (Burr, 2015). A pragmatic, pluralistic approach was taken to methodology, incorporating elements from different methodologies that were deemed most suitable for enhancing knowledge development. The methodology for the study draws on Interpretive Description (ID) (Thorne et al., 1997, Thorne et al., 2004) and Grounded Theory (GT).

ID is a methodology that extends beyond description into the domain of interpretive explanation, seeking to discover associations, relationships and patterns within and between the described phenomena (Thorne 2016). It acknowledges that human experience involves multiple realities and attends to the importance of context on experiences and expressions. This methodology enforces the suitability of a pluralistic approach to knowledge development in qualitative inquiry, particularly for the nursing profession who have a unique set of research requirements often focussing on complex experiential problems, not always best served by traditional approaches. This study incorporated an analytical framework, as proposed in ID, which foregrounded the study with scholarly positioning (Thorne 2016). This framework was composed of a systematic literature review (Healy et al 2016b) and an examination of the implications of my theoretical, disciplinary and personal perspectives upon my thinking and decision-making.

The intention of this study was not to develop a theory and hence a pure Grounded Theory (GT) approach was not adhered to but the principles of Grounded Theory guided certain methods. This is evident in that the data is grounded in context, data saturation was employed and there was an ongoing reflexive approach to data analysis.

Sampling, recruitment and participants

A purposive sampling technique was applied, enabling the researcher's (registered midwife working in both obstetric and midwifery-led models of care) knowledge of the population to recruit cases for inclusion in the sample (LoBiondo-Wood and Haber, 2006). Table 5.1 details the recruitment settings and grade/profession of participants.

Individual details are not provided for participants as anonymity may be compromised due to small numbers of maternity professionals in Ireland. Table 5.2 outlines the inclusion/exclusion criteria for participants. A variety of strategies was used to recruit participants. This included group information meetings in the hospital settings and recruitment posters to highlight the study to potential participants. Recruitment emails were sent to midwifery managers, obstetricians and community midwives as these groups were not inclined to attend the group sessions. From these approaches, 16 midwives and 9 obstetricians were recruited for interviews from three maternity units and the community. Recruitment and interviewing continued until data saturation was achieved i.e. the point at which information collected began to be repetitive (Hennink et al., 2011).

Table 5.1: Participant and setting details

Participant ↓	**Setting** →	Unit A: Obstetric-led unit with alongside midwifery-led unit	Unit B: Obstetric-led unit	Unit C: Obstetric-led unit with DOMINO service	Community homebirth service
Obstetricians[a]:		2	2	5	
Midwifery management[b]:		1	3	2	
Midwives working in obstetric-led models of care		1	3	1.5[c]	
Midwives working in midwifery-led models of care		2	0	0.5[c]	2[d]

[a] Consultant level (n=6), registrar level (n=3). Grade of profession is not distinguished within units to protect participant identity.

[b] Managers working directly with women in a clinical setting (n=3), working indirectly with women in a clinical setting (n=2), practice development midwife (n=1). Type of management is not distinguished within units to protect participant identity.

[c] The 0.5 and 1.5 figures reflect one midwife who works between an obstetric-led and midwifery-led model of care

[d] Both community-based midwives previously worked in obstetric-led units within 2 years of data collection

Table 5.2: Inclusion and exclusion criteria for participants
Inclusion Criteria for Participants
Must be currently working in a birthing environment i.e. labour ward, homebirth setting, birthing room of a midwifery-led unit Have at least six months' experience working in their current birth environment Have at least six months of experience in their current role Must be either a: Midwife in a clinical or managerial role Registrar obstetrician Or Consultant obstetrician
Exclusion Criteria for Participants
Midwifery or medical students Obstetric SHOs (Senior House Officers)

Data collection

Data were collected using semi-structured interviews which lasted from 30 to 70 minutes. An interview schedule comprising open questions, based on an extensive review of the literature examining midwives' and obstetricians' perceptions of risk (Healy et al., 2016b), guided the discussion (see Table 5.3). All but two of the interviews were conducted in the hospital/midwifery-led unit setting - both community midwives were interviewed in their homes. Participants in Unit B were previously known to the researcher as a student midwife. Interviews were audio recorded with consent and transcribed by the main author. Field notes were made after each interview.

Table 5.3: Interview Guide
1. There are concerns that birth is becoming increasingly medicalised. What is your view in relation to this?
2. Can you tell me about issues that might influence your decision-making when working with low-risk women in labour?
3. Do you think the issues of safety and risk are a dominant influence on practice? Can you give me any examples?
4. In your opinion, what are the views of the healthcare professional team on achieving normal birth?
5. Can you give me examples of what measures exist that have prevented normal birth in your unit/practice?
6. Do you feel that you base your practice on the best evidence available in relation to low-risk women in labour? If so, can you give an example of this? If not, what do you think affects your ability to practice evidence-based care?
7. Do you feel that your unit bases its practice on the best evidence available in relation to low-risk women in labour? If so, can you give an example of how this is achieved? If not what do you think affects the ability of the unit to practice evidence-based care?
8. Are there key differences between the attitudes of midwives and obstetricians regarding physiological birth? Can you elaborate on this drawing on specific examples in your experience?
9. In what ways does continued professional development impact on your decision-making and practice when caring for low-risk women in labour?
10. In your experience what are the factors that impact women when choosing a place for birth?

Data Analysis

Data were thematically analysed using Yin's five-step process for qualitative data analysis (see Table 5.4). Data analysis commenced after the first interview in line with the principles of GT and as advised by ID. Data analysis was an iterative process where there was ongoing engagement with the data to confirm, test, explore and expand the

conceptualisations that were formed on first entering the field (Thorne 2016). The principal author led data analysis but all three authors were involved in confirming emerging patterns and themes. The author took a constructivist approach to reflexivity acknowledging that personal experiences will inform the process and outcome of the inquiry. A reflective journal was used to comment on how the researcher intentionally included oneself in the analysis process and highlighted where this may have been compromised by unintentional bias. The analysis of personal, disciplinary and theoretical perspectives during the formation of an analytical framework contributed to reflexivity.

Table 5.4: Yin's five stage process for qualitative data analysis	
Step 1: Compiling	Involved the compilation of a database in NVivo 11. Interviews were listened to and transcripts read several times with general notes made on emerging themes.
Step 2: Disassembling	NVivo 11 was used to code interview data. The method of data analysis borrowed elements from grounded theory and involved open coding of all text into short segments of code. This was level one coding and assigned descriptive codenames to all codes. Level two involved assigning higher analytical codenames to the descriptive codes
Step 3: Reassembling	Connections were made between ideas/concepts coded and higher-level analytical categories were developed. Categories were subsequently synthesised to form themes. Emerging themes were refined and verified on a continuous basis with all three authors.
Step 4: Interpreting	This commenced with interpretation at level 2 open coding and continued through to interpretation regarding theme formation.
Step 5: Concluding	This entailed the assignment of further meaning to the data through discussion of the findings within the broader literature.

Ethical considerations

Ethical approval was granted by three relevant ethics committees in the local Health Services Executive (HSE). Interested participants were provided with an information sheet on the study prior to interview. At the interview stage, the study was explained again and participants had an opportunity to ask questions before they signed a consent form. All participants were informed they could withdraw from the study at any time but none did.

5.4 Findings

Individualised risk analysis and care appears to be subordinate to achieving specific positive clinical outcomes, with focus on perinatal and maternal mortality figures. This has the result of lessening the care aspect of maternity provision and justifying this through what are perceived to be the best outcomes. Contributing to this, maternity healthcare professionals often see their job as risky and stressful with formal reflection on risk and how it impacts care neglected. This has resulted in maternity services where obstetricians and midwives are working defensively. These points are further illustrated in four themes.

Working with birth is risky and stressful

This theme illustrates how birth is perceived as a risky and quite often stressful event. The process of birth itself is seen as having many inherent dangers that pose risks to both mother and child, consequently having a direct bearing on those who facilitate it in a professional capacity. Midwives and obstetricians describe their vulnerability working in an area that carries considerable risk to both their professional and personal integrity.

> *'I think the reality is we are in a risky business because childbirth is you know, if you look at childbirth in the normal natural state it's a very, very risky business.' [Obstetrician 1]*

While it is acknowledged by participants as a rewarding job this is overshadowed by how stressful working with birth can be. The lack of public understanding of these stresses is seen as a contributing factor in litigation.

> *'I think you know the general Joe Blogs walking down the street doesn't realise the burden that rests on our shoulders' [Obstetrician 4]*

'There is a negative perception around consultants in particular. And that is more likely now to lead to complaints and litigations and we've seen an upsurge in that and a lot more time is taken up in dealing with those than would have been before' [Obstetrician 6]

Midwives and obstetricians equally acknowledge that perception of the job as risky is a result of difficult decision-making due to the uncertainties of birth. Decision-making is reported as very rarely being straightforward with the outcome never a guarantee. This has the effect of increasing risk perception around low-risk women as illustrated below by a registrar obstetrician.

'I am sort of always waiting for the disaster over your shoulder. Even in the low-risk women because you see women who come in, who had a lovely straightforward pregnancy, no previous issues, and all of a sudden there is a massive PPH [post-partum haemorrhage] and you wonder how it happened' [Obstetrician 5]

Our data reveal that risk and intervention can be exacerbated by a lack of definition of what constitutes a low-risk woman. While midwives working in midwifery-led settings rely heavily on their guidelines as a way of identifying and low-risk women, in obstetric-led settings there is recognition for the need for improved methods of risk stratification to prevent blanket interventions for all women.

'My opinion is that we have gone too far down that route [routine interventions in labour], we need to try and get it back to, certainly identifying the low-risk women and allowing them not to have the interventions'" [Obstetric-led unit (OLU) midwife 9]

Although there is an awareness that there needs to be improved methods of identifying the women who can avoid routine interventions one obstetrician believes there is an overestimation of low-risk women.

'We really don't have that many low-risk patients... I think that is a misperception that there are a lot of low-risk patients out there' [Obstetrician 4]

These points illustrate that confusion still exists regarding what constitutes low-risk, resulting in women receiving either too much or too little surveillance and intervention.

This theme highlights the perception that birth and working with birth is both risky and stressful. Alongside this, low-risk women continue to receive inappropriate levels of intervention whereas higher-risk women may not be receiving sufficient intervention.

Challenges in balancing intervention and risk with self-preservation

This theme reveals that balancing the level of intervention to provide the best possible outcome poses difficulties for midwives and obstetricians when facilitating care for birthing women. These data demonstrate that this is not always straightforward and can be a complex process. Highlighted here is the perception that intervention can be used successfully on the one hand to achieve better outcomes but alternatively it can be used to avoid implication and blame in an adverse outcome and is not necessarily in the best interest of the woman. Participants are very aware of how the judicious use of interventions has contributed enormously to achieving positive outcome.

> *'Caesarean section…it is probably, it may well be the world's best medical intervention.' [Obstetrician 7]*

Midwives recount situations where an intervention such as an assisted delivery or use of oxytocin resulted in a vaginal birth as opposed to a caesarean section so there is an appreciation of how intervention plays a role in achieving positive outcomes. One obstetrician highlights that a certain amount of intervention, in the form of professional input, is a necessary part of formal maternity care to ensure maternal and fetal mortality rates remain as low as they currently are.

> *'So we can get fixated about Caesarean section [high rates of it]…but if we want, the best way to decline this is actually to decline input of professionals ... and we then go back to accepting a different level of outcome.' [Obstetrician 3]*

Although the judicious use of intervention is perceived as a positive, there is a sense that unnecessary intervention occurs constantly.

> *'We still interfere too much and I know we don't have a crystal ball and you can't blame interference for everything but you can say that maybe, like that woman the other day [failed induction], you know, maybe she could have been managed differently' [OLU midwife 5]*

These data notably reveal that over-intervention is a result of 'erring on the side of caution' to achieve positive clinical outcomes but also as a form of self-protection. The

personal and professional toll of being involved in an adverse outcome is considered extremely high, resulting in professionals avoiding situations considered risky.

> *'And actually, litigation is over everybody's head, you know like the sword of Damocles. So, it does make you think, well we won't maybe wait the half hour to see if this head comes down because you are thinking of the what ifs scenario.' [Midwifery-led unit (MLU) midwife 2]*

One midwife discloses the personal devastation and overwhelming sense of guilt being involved in an adverse outcome.

> *'When she came in, no movement, no fetal heart, that was horrific. It was horrific for me, it was horrific for the woman and her partner. It was absolutely horrific for me ... and regardless of how nice people are to you afterwards and there isn't anything to be done, you do take things personally.' [MLU midwife 2]*

While participants demonstrated huge empathy for parents who suffered an adverse outcome, they are also hyper-alert to the repercussions for themselves and are fearful of being blamed for an incident, increasing the likelihood of them over-intervening. It is implied that fear of litigation also has a direct influence on how professionals manage risk.

> *'I think it's also a lot more in the way of litigation pressure than it used to be. And maybe a sense of less forgiveness for things going wrong where, you know, there is a stillbirth or a neonatal death or asphyxia of a baby or whatever. So, in trying to prevent that you end up intervening a lot of the time.' [Obstetrician 8]*

Professionals also believe that they are far more likely to be blamed for not performing an intervention rather than over-intervention, especially in the event of an adverse outcome, resulting in non-evidence-based or reflexive decision-making.

> *'The way that the health service is going at the moment ... everything is considered to be so risky and considered to be litigious and we are always reporting risks… And so, there is that general level of you know, I'm going to be blamed if I don't do things, but what they [healthcare professionals] are not seeing is that they could be blamed for doing something that maybe they would have been better off not doing.' [OLU midwife 10]*

Contributing to over-intervention and risk-based decision-making is the belief that there is an increasing intolerance for adverse outcomes or experiences of a difficult birth in both the maternity services and wider society, resulting in increased medicalisation.

> *'If you're in a culture where there is no tolerance of imperfection and very little tolerance for a person making a mistake of course the Caesarean section rate is going to be very high.' [Obstetrician 5]*

> *'So, the expectation now is ... babies don't die, women don't die. And that's by and large the way it is now… And to some extent midwives and obstetricians are victims of the success of making things safer… Intervention is seen as interference rather than assistance. And when things go wrong, then somebody must have done something wrong.' [Obstetrician 8]*

There were suggestions that professionals need to counteract the notion of 100% perfect outcomes with parents and their healthcare institution or rates of intervention will further escalate as a form of protection against blame and litigation.

> *'Politically we have offered outcomes that not only we, but the richest countries in the world can't actually achieve and I think that's something that we as obstetricians and midwives should be challenging together. You know, the more things like that are stated [guaranteed 100% perfect outcomes] the more we accept them and the higher the chance of us getting into trouble with either our employer or the courts and therefore the higher the chance, you know what, it might be easier to intervene here.' [Obstetrician 3]*

This theme brings into stark reality the fact that over-intervention is increasing as professionals strive to protect themselves in an increasingly risk-based, litigious birth environment. Midwives and obstetricians work under stress as expectations for a guaranteed positive outcome are perceived to be soaring amongst prospective parents, society in general and within the institution of maternity care delivery.

Limited resources contributing to an inability to counteract irrational risk

A significant finding in this study is how the lack of resources in maternity care is contributing to extremely busy services that are institutionally-driven and struggle to provide woman-centred care. Maternity professionals have limited time to formally reflect on the implications of risk perception on decision-making. Therefore, despite risk appearing to influence most decisions this is often irrational risk perception derived

from fear rather than from an educated, evidence-based assessment of risk. Antenatal clinics have been referred to, by several participants, as 'cattle marts' providing conveyor-belt care, affecting the experience of both women and healthcare providers. One midwife emphasises how professionals become institutionalised into this type of care.

> *'I think I'm seeing a lack of resources on time which is putting women on a conveyor belt…with very little room to give a little bit more individualised plan, to observe something…. And I think now that's happening it's become the norm and so the younger doctors that are coming through, that's what they see is how you deal with that problem.' [Community midwife 2]*

The majority of antenatal care is facilitated by obstetricians where in many cases midwifery-led care may have been more appropriate. Evident is the lack of a formal thought process regarding risk where an underlying suggestion prevails: as long as women meet an obstetrician care is considered safe regardless of how non-individualised or inappropriate this model of care may be.

> *'Everybody comes through the higher risk clinic, they receive the standard package of care which is sub-optimal, it's a bit haphazard, it's shared with their GP, they don't get routine things that would be considered absolute basic things in other countries, like a 20-week anatomy scan. And yet all women come back at 36 weeks to see a trained obstetrician … It's difficult to change it for cultural reasons and also because doing anything in a time of austerity is always very difficult.' [Obstetrician 1]*

The data highlights how, increasingly, there are limited opportunities for continued professional development and education, because of limited resources, ultimately affecting how risk is perceived. This is causing resentment and contributing to stagnation of practices.

> *'I don't think we have near enough protected time. What I was seeing is that two people have gone out sick, suddenly your study day that you desperately needed to go on was rescinded. And you had to come in and work.' [Community midwife 2]*

Junior staff in particular are affected by diminishing resources. Evident in these data is junior doctors' lack of opportunity to observe physiological birth resulting in them

being immersed in high-risk emergencies on a continual basis, contributing to a biased sense of risk towards normal birth.

> *'When I was just an SHO a lot of what I did was stay around the labour ward and learn a huge amount from senior midwives. Whereas now, all SHOs and registrars are either in clinic or on the labour ward and they are troubleshooting, putting out fires and doing elective sections at the same time so there is very little if any time to just be able to stand, watch. I mean very few obstetric SHOs, registrars will ever see a normal birth.' [Obstetrician 2]*

An additional concern is the lack of senior support available to junior obstetricians. This has major implications for how doctors perceive risk and accordingly make decisions.

> *'There is a very low rate of women aiming for a trial of labour the next time [after a previous caesarean section] and I think a lot of that may be that the hospital is just so busy ... If they saw somebody senior that could help to reassure them, rather than an SHO or Reg, who thinks the easiest thing is to book them for an elective section.' [Obstetrician 2]*

This theme highlights how diminishing resources and increased workload have contributed to the perpetuation of an institutional-centred model where the system fails to address individualised woman-centred care. Maternity professionals, because of a lack of appropriate experience, senior support and continued education have retreated to over-intervention as there is little opportunity to formally assess and balance risk.

Outcomes-driven model dominant in maternity services

Analysis of the data reveal that while safety is the utmost priority, clinical outcomes rather than process take precedent when assessing quality of care. A clinically-safe outcome is judged as the ultimate standard while satisfaction of the process is not judged as particularly important. One community midwife reflects on how helpless she feels about the lack of focus on process in the hospital environment and how it affects her role as a midwife.

> *'I know if I am in the hospital, you would always worry because you know you could have always done so much better in different circumstances.' [Community midwife 1]*

Within obstetric-led units there was an impression that there is less requirement to examine process more closely as outcomes are considered very good. One community midwife describes her perception of obstetric-led hospital services,

> *'…it's like as if we don't care about the quality of women's experiences I think in this country a lot of the time. As long as it's getting them in and getting them delivered.' [Community Midwife 1]*

When process was investigated it tended to focus on the reasons for bad outcomes with little consideration given to examining process for satisfactory experience or good outcomes.

> *'And there hasn't been enough emphasis on how things go right, and look, this is what we did here and that actually worked very well. And emphasising the positive or taking on board the potential problem when nothing has gone wrong yet.' [Obstetrician 8]*

Further contributing to a focus on outcomes rather than process is the perception that women are willing to take risks to themselves, receive high rates of intervention and tolerate negative experiences to ensure a healthy baby. The data suggest that healthcare professionals may believe that interventions that 'err on the side of caution' are often motivated by women and not always the professional.

> *'People regard childbirth as the absolute most important thing in their lives, the health of their children. Women will do anything to get a healthy baby…So that's the only thing driving it, from the doctor's point of view and from the midwife's point of view and the patient's point of view. [Obstetrician 7]*

An important finding is that risk assessment, both on an individual and institutional level, does not prioritise what cannot be easily measured e.g. psychological well-being. This has the effect of viewing the clinical outcome as the only indicator for quality care. Highlighted is the acceptance of the clear correlation between intervention and the easily-measured clinical outcomes ensuring the perpetuation of decision-making that contributes to such outcomes without adequate regard for process.

> *'The things that we can measure are hard things like death, like HIE (Hypoxic Ischemic Encephalopathy) and there is no question about it that those things have improved as intervention has improved.' [Obstetrician 3]*

This theme emphasises how the benchmark for quality appears to be narrowly-based on clinical outcomes. The consequence is that risk assessment does not account for variables that are more difficult to measure such as satisfaction with the experience. This phenomenon appears to be accepted by many professionals resulting in 'care' diminishing in maternity services and replaced by risk management strategies, both formal and informal, to achieve specific, easily-measurable outcomes.

5.5 Discussion

The results of this study highlight how the rhetoric of policy regarding choice, informed consent and woman-centred care (NICE 2015, Ireland, Department of Health 2016, NHS 2016) is not always aligned with the reality of practice. Revealed within these data is the prioritisation of clinical outcome over process in institutional risk assessment activities. Women are often subjected to interventions that may not always be in their best interest as professionals seek to protect their personal and professional reputations.

Risk analyses in this study are viewed as a means of achieving safe outcomes and secondary to this, providing appropriate levels of care. Current practice in risk analysis is narrowly-focused on clinical indications and fails to incorporate social aspects of risk which, when not considered, can exacerbate clinical risk (Barclay and Kornelsen 2016). Walsh (2006) warns that if we fail to incorporate the context of women's lives into risk analysis processes then context becomes invisible and this may represent a much higher risk than the potential and rare risks associated with their medical history. The increasing, albeit limited, practice of 'freebirth' is an example of this, where women deliberately decline the input of professionals for their pregnancy and birth. These women describe risk discourse as a tool used by the maternity service to coerce them into certain actions that protect the healthcare professional as opposed to promoting well-being for the woman (Plested and Kirkham 2016). A recent Irish study of women who have suffered birth trauma concludes that the identity and individuality of women is ignored in the birth process (Byrne *et al*. 2017). An article in The Telegraph (Hill 2015) suggests that women's voices are silenced by a belief that a healthy baby should be their only concern. Hill, a freelance writer and founder of the Positive Birth Movement, argues that while a healthy baby is a woman's top priority this should be the baseline of their expectations in regards to maternity care and not the pinnacle.

Risk analyses, including risk stratification, should be individualised and subjective (Lee *et al*. 2016) but in our study maternity services are often practising rote and prescriptive

methods for risk analysis. Reflection on the process is neglected, as there is a belief that the current system works well for managing risk and assumes that women willingly comply without seeking their opinion. A study of women choosing homebirth (Edwards 2005) illustrates how some women believe that uncertainty is inherent to life and hence birth and cannot be controlled by obstetric care. Incorporating this view into the risk analysis process would probably seem untenable to many obstetric hospitals as a more recent study (Scamell 2016) found that the idea of viewing birth as both normal and uncertain was unacceptable in the context of maternity organisations' clinical governance. Agustsson (2006) stresses that there is no such thing as 'zero risk' regardless of what care women receive or choose and that healthcare professionals need to be more aware of this.

Data from this study uncovers the fear associated with not achieving best outcomes resulting in over-intervention for low-risk women that is often assumed to be the best course of action with little regard for the actual level of risk. Dahlen (2016) stresses that professionals should avoid ambiguous language when discussing care options with women and emphasise absolute risk rather than relative risk. However, professionals in a recent Canadian study (Van Wagner 2016) perceive that risk discussion can undermine low-intervention approaches to birth and reassurances about safety. To counteract this, they used strategies to put risk in perspective including comparing obstetric risk to everyday risks, using pictograms and words rather than numbers and using absolute rather than relative risk. Our study raises the question of whether healthcare professionals are properly informed and educated about the risks entailed in women accepting or declining interventions or whether fear is the primary driver behind risk discussion. Illustrated is the serious lack of formal focus on risk discussion, debriefing and education for professionals. It appears that nobody wants to discuss risk as a potentially holistic and positive aspect of care and, as Scamell (2016) explains, once risk is perceived as something hazardous then the response to risk becomes avoidance, ultimately leading to a lack of formal reflection on risk.

Apparent from our study is how professionals become institutionalised into a conveyor-belt model of care. While the findings suggest that they can be concerned about quality of care this is often over-ridden by the need for self-preservation and to achieve what are perceived to be the indicators of safe maternity care i.e. positive clinical outcomes. Midwives and obstetricians have diminishing opportunities to see how normality can thrive leading to risk decision-making becoming automatic. Walsh (2006) believes that

this type of large, industrial model of care is failing women who anticipate a normal pregnancy and birth and is ultimately becoming a risk to normal birth. In his seminal piece 'Fish can't see water' Wagner (2001) cautions that the functions of an organisation become normal to insider risk assessors, diminishing capacity for reflection on risk. In our study, a lack of reflection on certain issues has been highlighted through practices such as inexperienced junior doctors working without adequate supervision and a lack of individualised care. If risk assessment continues to focus on clinical outcomes it is evident that certain risks will continue unquestioned while others will remain under scrutiny, hindering maternity services in providing woman-centred care.

5.6 Conclusion

Risk continues to be a highly-debated topic within maternity care. The complex nature of risk ensures that attitudes and perceptions will continue to be widely-contested. What this study highlights is that the 'care' aspect of maternity care is being lost as the focus of risk assessment is increasingly on clinical outcomes as the 'gold standard', ensuring diminished recognition of holistic care. The principles of choice and woman-centred care cannot be operationalised when the priority is on self-protection for healthcare professionals and maternity care institutions.

Individualised care, although enshrined in policy, needs to become a reality for women and their families. Risk assessment strategies must incorporate action plans to aid healthcare professionals involve women in their care and ensure shared responsibility for decision-making. More opportunities for formal assessment and discussion of risk with women and between healthcare professionals may contribute to changes in the way risk is perceived and acted upon.

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Chapter 6: Discussion and conclusion

6.1 Introduction

The overall aim of this thesis was to investigate how midwives' and obstetricians' perceptions of risk affect the care they facilitate for low-risk women and how this, in turn, may affect the process of physiological birth. It sought to gain a deeper understanding of how perceptions of risk may contribute to often-unnecessary interventions for low-risk women in labour. Paper 1 examined the existing literature through a systematic integrative review. This provided a synthesis and assessment of the state of the existing literature, guided the development of the research question and informed the research design for the primary study. Paper 2, a discussion paper, explored how socio-cultural factors affect women and midwives' risk perceptions of birth and the impact of this on maternity care. This paper incorporated preliminary findings from the main study based on midwives' and obstetricians' perceptions of risk. Paper 3 and Paper 4 present the findings from the primary research study on which this thesis is based.

This chapter is presented in four key parts:

1. An overview and summary of the key findings
2. The implications of the findings for maternity practice and policy
3. Methodological strengths and limitations of the thesis
4. Recommendations for future practice, policy and research

6.2 Overview and discussion of findings

In chapter one the main findings from each paper are presented in Table 1.5. This section summarises the findings from the four papers included in this thesis (Papers 1-4) under two over-arching, inter-related themes. In presenting key points from the findings, the contribution of the individual papers is highlighted.

1. Erosion of midwifery professional identity
2. The changing focus of care in maternity services

6.2.1 Erosion of midwifery professional identity

A significant finding from this thesis is how the professional identity of midwives is affected by perceptions of risk surrounding the management of labour and birth. Previous research highlighted the effects of the medicalisation of birth on the professional role of midwives, resulting in the normalisation and veneration of medical

knowledge over midwifery knowledge (Oakley 1980, Donnison 1977, Keating and Fleming 2009). This is now evident in the endorsement of medically-based notions of risk within current maternity services, including understanding of what constitutes normality and abnormality during birth (Pollard 2011). This theme highlights how these perceptions of risk have affected the role and professional identity of midwives.

Significant in this thesis is the evident hierarchy between obstetric and midwifery values. A review of the literature for this study (Paper 1) illustrates the veneration of obstetric decisions within organisations and demonstrates how midwives become institutionalised into performing interventions at the request of a doctor, despite at times disagreeing with the decision. This was also apparent where in some instances the obstetric profession was perceived to have power over decision-making at a clinical and organisational level (Paper 3). Paper 2 discusses the dominance of obstetrics within the current maternity services but findings from the primary research study (Paper 3) highlight how neither midwives nor obstetricians are satisfied with the current model of care in which most women, irrespective of their risk status, are under the care of an obstetrician with minimal midwifery input. Paper 3 contributes significantly to this theme whereby obstetricians believe their time and expertise could be more efficiently utilised caring for high-risk women and alluded to having skewed perceptions of risk and hence not being the most appropriate professionals to care for low-risk women. For midwives, there was strong emphasis on the frustration with this arrangement, particularly in relation to their lack of power over decision-making for low-risk women. Despite voicing these frustrations, it was perceived that many midwives may not particularly want autonomy or to take on lead roles in the provision of care for birthing women. This was attributed to a fear of being primarily accountable for decisions made and which potentially could result in an adverse outcome. Disagreeing with an obstetric decision was perceived as putting your professional reputation at risk, particularly if the outcome was not satisfactory.

Evidenced in this thesis is the danger of the role of the midwife, as a professional expert in normal birth, being eroded by a culture of increased focus on risk and risk management (Paper 3). Midwives describe being gradually removed from woman-centred care as the emphasis is increasingly on administration and risk management strategies rather than the midwifery philosophy of 'being with woman'. This was compounded by a perceived lack of effective midwifery management with the increased requirement for them to take on more administration duties, removing their expertise

from clinical care. There was a suggestion that other professions, such as doulas, will take over the caring aspect of the role if midwives are forced to engage in risk management duties that keep them at a distance from birthing women. Smith (2014) emphasises the precarious identity of midwives in the NHS in the UK, caught between maternity support workers on one side, who have taken over many caring, social and emotional aspects of the midwife's role and, on the other, by the medical model that defines birth through intervention and technology.

Contributing to the erosion of the identity and role of the midwife is the limited opportunities for both registered and student midwives to experience the facilitation of physiological birth (Paper 4). Midwives are deprived of opportunities to work in midwifery-led models of care as sufficient numbers of these do not exist. When midwives did have this opportunity, it was perceived to help midwives to trust physiological birth (Paper 3) whereas previous research suggests that midwives working in obstetric-led settings are less likely to see physiological birth as safe or as important (Paper 2). Also noted is the lack of continued professional development to support midwives in facilitating physiological birth with the focus of much of training on managing obstetric emergencies (Paper 3). When midwives did attend study days focussing on promoting physiological birth they felt more supported and prepared to facilitate it in their working environment.

As intervention becomes normalised for midwives there is a snowball effect on teaching student midwives, ensuring that the notion of intervention as the norm is perpetuated in new generations of midwives (Paper 3). Student midwives for the most part only experience birth in a medicalised environment depriving them of experience of facilitating physiological birth, a core midwifery skill. Paper 1, the existing literature, highlights the increasing worry that student midwives are learning from obstetricians rather than midwives as rates of physiological birth decline. Universities, providers of formal education to student midwives, have recognised this problem and are currently introducing strategies to expose student midwives to increased midwifery-led care (O'Connell and Bradshaw 2016).

In these conditions, midwifery may be undervalued, as emphasised in this thesis (Paper 1 and Paper 3). The literature review (Paper 1) reports how midwives feel that traditional midwifery skills may be viewed with disdain, by both midwives and obstetricians, in medicalised birth settings. The primary research findings support this (Paper 3), demonstrating that midwifery-led care is supported by individual healthcare

professionals but not by the organisation as a whole. The mistrust of this model if it was not co-located with a hospital was apparent, despite research demonstrating lower intervention and comparable mortality rates for low-risk women choosing out-of-hospital birth (Brocklehurst *et al*. 2012). There was evidence to suggest that trust between the professions of midwifery and obstetrics contributed to midwifery-led care being accepted and to work well in one unit. Good relationships were reported between midwives and obstetricians at an individual level overall which demonstrates a positive base from which to continue building trust so that midwifery-led models of care can be initialised, where they are currently not available, and sustained to improve care options for women. Good communication and collaboration is vital and contributes to safer outcomes for mothers and babies (Lyndon *et al*. 2015).

The extremely busy environment and lack of resources within the maternity services was a contributing factor to the difficulties experienced by midwives in caring for low-risk women and in preventing unnecessary input from other professions (Paper 4). Paper 2 discusses how all women attending hospital maternity services are seen by an obstetrician at their first antenatal visit to the hospital and the majority remain under their care for their pregnancy and birth. Women have little input from midwives and minimal time for discussion of risk, particularly related to choices regarding labour and birth. Paper 4 supports this by demonstrating the lack of a formal thought process regarding risk where an underlying suggestion prevails: if women meet an obstetrician care is considered safe regardless of how non-individualised or inappropriate this model of care may be.

Although women were not interviewed for the primary study healthcare professionals stated their views of what they believe women think and feel about the maternity services, including women's perceptions of the role of midwives (Paper 3). Highlighted by both midwives and obstetricians is the perception that women have more trust in doctors than midwives and have an expectation of obstetric input in their care (this is from the primary research study undertaken in the Irish maternity services setting). It is suggested that many women may not understand and thus may not value midwifery input. Promotion of midwifery care was perceived as vital to improving women's uptake of midwifery-led services. But it was questioned by both professions whether women will tolerate a dominant midwifery-led model of care due to the trust placed in doctors. These findings suggest that midwives may not be actively promoting the benefits of midwifery care to women and must now engage in this activity if women are

to understand and experience the benefits of it. It is noted by one midwife that when women do experience midwifery-led care they acknowledge its benefits.

6.2.2 The changing focus of care in maternity services

The findings from this thesis present a picture of the maternity services as a model in which clinical outcomes (significantly infant and maternal mortality rates) are the 'gold standard' and quality of 'care' is secondary. With mortality outcomes continually improving in Ireland (Health Pricing Office 2016) and comparable to other high-income-countries (Shaw *et al*. 2016) there is a sense that there is no need to fix what is not broken (Paper 4). This study suggests that striving for the best clinical outcomes is to the detriment of the caring and holistic aspects of our maternity service (Paper 4). Paper 2 discusses how psychological, cultural and spiritual well-being is not considered to be of equal importance to physical well-being, highlighted by the lack of statistics on respectful and compassionate care within risk management strategies. This prioritisation of clinical outcomes ensures that these will be the indicators for quality care as opposed to also incorporating caring processes, which are more difficult to measure and audit (Paper 4).

This thesis highlights how the fear of becoming implicated in an adverse outcome has resulted in the focus of care being aimed at achieving positive clinical outcomes through the use of intervention and technology. This has resulted in over-intervention that is not necessarily evidence-based and can be emotionally-driven from the perspective of the healthcare professional (Paper 4). The overuse of technology, particularly CEFM, is attributed to a fear of adverse outcomes (Paper 1). Participants in the primary study used CEFM for low-risk women on admission to labour despite knowing that it is not evidence-based (Paper 3). While there is genuine concern for women and babies, obstetricians and midwives feel the need to protect themselves from implication in adverse clinical outcomes which can have huge consequences for both their professional and personal reputations (Paper 1 and 4). Midwives have reported feeling like criminals when implicated in an adverse outcome and perceive over-intervention as opposed to under-intervention as a safer course to take (Paper 1). While this research may demonstrate a tendency towards over-intervention it also illustrates an awareness from healthcare professionals of how the judicious use of interventions has contributed enormously to achieving positive outcome. This awareness highlighted how balancing the level of intervention to provide the best possible outcome is a complex process (Paper 4). Midwives working in midwifery-led settings perceive their guidelines as a

way of providing appropriate, evidence-based care to women but also as a means of defending their low-intervention practice and counteracting risk-based decision-making (Paper 4).

The changing focus of care can also be attributed to a change in attitudes to the acceptability of certain outcomes. This thesis highlights the perception that there is an increasing intolerance for adverse outcomes in both the maternity services and wider society which is influencing the quality of care (Paper 4). With changes in society, including higher levels of education in the population and higher expectations of services there is a belief that we can control or even prevent risk. This has impacted on health services to the point where there is the perception that everything can and should be cured and that everything can be normalised to achieve a perfect outcome (Paper 2). It is proposed that professionals need to counteract the notion of a perfect outcome with the public and the healthcare institution providing maternity care as this is a false and unachievable expectation that will further escalate intervention as a form of protection against blame and litigation (Paper 4).

Contributing to the complexity of risk and the changing focus of care is the perception that women are prepared to tolerate increased intervention and less care if they perceive that everything is being done to ensure a healthy baby (Paper 4). Women are continually exposed to a litany of risks regarding pregnancy and birth which is fuelled by negative media coverage of adverse birth outcomes (Paper 2). This ensures that women are not prepared to take certain risks that have been deemed unacceptable by wider society such as homebirth but will subject themselves to high rates of intervention and models of care that are not always appropriate or safe but are perceived as the 'responsible choice'. It is proposed that this is based on a fear of possible risk rather than the probability of it or from any substantial experience (Paper 2). For risk to have a benefit it must be intelligently-balanced, weighed and contextualised but within the current services women are not getting an opportunity to adequately do this in a relationship with their healthcare professional (Paper 2). Paper 1 highlights how healthcare professionals may be reluctant to give women the responsibility of making the final decision in their care as it may implicate the healthcare professional if this resulted in an adverse outcome. Evident within the primary study is how healthcare professionals become institutionalised into conveyor belt care that prioritises clinical outcomes over woman-centred care and hence, like women, do not have an opportunity to intelligently balance, weigh and contextualise risk (Paper 4).

Paper 4 highlights a lack of formal thought process and strategic planning regarding risk, in that care is considered safe if women meet an obstetrician with little regard for how appropriate this is for the woman. Risk stratification at the initial antenatal visit is another example of where there is scope for more formal thought processes and insightful strategy regarding risk. Healthcare professionals rely on risk stratification to achieve safe outcomes and secondary to this appropriate care. However, current risk stratification is narrowly-focused on clinical indications and often fails to incorporate social aspects i.e. women are stratified into risk categories by a pre-set questionnaire that leaves little room for individual preferences or notions of risk held by the woman. Risk stratification assessment has become a routine task for midwives and obstetricians and reflection on the process is minimal as they believe it works well for managing risk and assume that women willingly comply. This thesis questions whether healthcare professionals are adequately informed and educated about the risks entailed in women accepting or declining interventions. It is evident that suggestions for care are often based on prevailing institutional notions of risk. Illustrated in this study is the limited opportunities for formal education and development of maternity professionals in regards to risk, ultimately affecting how risk is perceived and acted upon (Paper 4). Also of concern is the lack of senior support available to junior obstetricians which has implications for how doctors perceive risk and ultimately make decisions (Paper 4).

In summary, while there is substantial evidence that healthcare professionals want the best outcomes for women and babies these outcomes are often narrowly-focused on clinical indicators and fail to incorporate caring aspects. This cannot be reduced to a single issue but is connected to a set of factors which come together, as described in this thesis, to dilute maternity care in favour of clinical outcomes. Combined, these factors have the effect of eroding midwifery professional identity and shifting the focus of care to achieving positive clinical outcomes as opposed to an overall focus on the quality of care.

6.3 Implications of findings for maternity practice and policy

The insights provided from the findings of this thesis have implications for maternity practice and policy. They can provide insight into the organisation and provision of care for low-risk women at international, national and local level. It also has implications for the education, preparation and continued professional development of maternity healthcare professionals, particularly midwives. A series of papers published

in the Lancet focusses on maternal health with one paper emphasising the drivers of maternity care in high income countries (Shaw *et al*. 2016). This paper acknowledges that while mortality rates are low in high-income-countries the reality of practice is far from perfect. It concurs with many of the findings of this study and suggests that not all care is evidence-based and that fear is a driver for increased and inappropriate interventions. Fear is attributed to both women and healthcare professionals. In a key message, Shaw *et al*. (2016) urge that women be offered care that supports the safe physiological process of labour and birth with the lowest level of intervention possible. This is acknowledged as supporting woman-centred care and asks that there needs to be consideration into how this can be promoted. This section sets out the implications arising from the findings and conclusions of this thesis. The arguments presented are in two sections, discussing first implications for practice and secondly, implications for policy.

6.3.1 Implications for maternity practice

1. **Physiological birth, often referred to as normal birth, may be at risk in the current culture of heightened risk perceptions and increased interventions in birth. Midwives should be the best profession to defend it.** The regulatory body for the professional practice of nurses and midwives in Ireland, the NMBI (Nursing & Midwifery Board of Ireland), clearly lays out the professional standards for midwives and includes a section on midwifery philosophy and values (NMBI 2015). The NMBI acknowledges that birth is a normal physiological process and that the midwife is the most appropriate professional to attend women in labour and birth and will do this in collaboration with other healthcare professionals when required. However, this thesis highlights that midwives have accepted the status quo, buying into the necessity of many interventions to prevent adverse outcomes, despite being contrary to best evidence. Many now see birth as an abnormal event requiring medical intervention and often have difficulty trusting and believing in the normal physiological processes of birth or women's ability to birth in a physiological manner. An evolving theory on the professionalism of midwifery suggests that midwives working in hospitals are under pressure to work in an ideology not consistent with fostering a midwifery culture that is in line with the stated aims of the international midwifery community (Halldorsdottir and Karlsdottir 2011). This thesis highlights the need for processes within clinical governance to protect and promote normal birth, including processes to support midwives to

trust physiological birth and to facilitate it with confidence in all models of care. While intervention-free, physiological birth may not be a priority for all, particularly when medical notions of normality are emphasised, there is a possibility that the importance of physiological birth will be de-emphasised if midwives do not take up the challenge of defending and supporting it.

2. **The role and identity of the midwife as a lead provider of holistic, woman-centred care is in jeopardy.** This thesis highlights how other professions such as doulas and obstetricians are gradually assuming the role of midwives in some jurisdictions. On one side, doulas and maternity support workers are taking over certain caring aspects of the role of midwives and, on the other, obstetricians are leading care for low-risk women, traditionally a midwifery role. It appears that some midwives are accepting of the current situation and do not appear to have deep insight into the implications of this on their professional identity as the experts in normal birth. Midwives working in countries in which childbirth is perceived as a normal but significant life event are more likely to have a strong professional identity and sense of empowerment (Hildingsson *et al*. 2016). It is suggested that in the current climate of midwifery shortages worldwide, development of midwifery autonomy and empowerment are essential to the recruitment and retention of midwives (Hildingsson *et al*. 2016). Strategies must be put in place to enhance midwifery autonomy and empowerment including more opportunities for education and placements in midwifery-led models of care. Midwives must be willing to take on autonomous roles and work towards empowerment if changes are to be made.

3. **The caring aspect of maternity care is diminishing in the current services as achieving positive clinical outcomes is the priority, to the detriment of quality of care.** The midwifery profession is in a unique position to enhance and defend caring for childbearing women (Halldorsdottir and Karlsdottir 2011). However, this is difficult when medical notions of risk regarding birth dominate both the maternity services and wider society. Midwives struggle to balance their commitment to caring for women and promoting normality with organisational risk operations that promote clinical outcomes as the 'gold standard' (Scamell 2016). Salutogenesis has been suggested by Downe (2010) as a risk reductionist approach for designing and auditing maternity care. She believes focussing on what contributes to positive outcomes may begin to tackle the high levels of intervention in maternity care. Smith *et al*. (2014) found that

the effectiveness of maternity care in labour is primarily measured against adverse outcomes rather than elements of salutogenesis or health and well-being. While they acknowledge the critical need to avoid adverse events they believe the continued, dominant focus on risk-reduction continues to inform both practice and policy. This thesis supports this point, highlighting how the focus of the maternity services is on reducing maternal and fetal mortality and morbidity, acknowledged as a priority for all involved in the maternity services, to the detriment of 'care'. Incorporating salutogenesis as an approach to planning maternity care may provide a solution to providing holistic care that continues to prioritise safety but can also incorporate a woman-centred philosophy at its core.

4. **Risk needs to be assessed on an individual basis.** This thesis suggests, based on the perceptions of midwives and obstetricians, that women are not sufficiently involved in the planning of their care and that women are compliant with and accept the *status quo*. As evidenced, women are stratified into risk categories based on strict guidelines that aim to achieve the best possible clinical outcomes but there appears to be little attention paid to individual women's perspectives on risk. The woman should be the primary decision-maker in her care and she has the right to information that helps her to make decisions (NMBI 2015). Research demonstrates that when systems fail to incorporate social aspects of risk into risk assessment this can exacerbate clinical risk (Barclay and Kornelsen 2016). For care to become truly woman-centred greater efforts must be made to involve women in the planning of their care, including conversations regarding how they perceive risk.
5. **There is a need for more formal processes for healthcare professionals to assess and contextualise risk.** While risk stratification is a way to formalise risk, for many healthcare professionals this often only happens at the initial antenatal visit and does not include any significant input from women, as highlighted above. Maternity professionals are required to make immediate decisions when facilitating care for labouring women. To prevent these decisions being based on fear there needs to be more formal processes for risk discussion and reflection. This thesis highlights a deficit in this regard and suggests open forums where risk can be discussed without judgement and with a focus on best evidence. There are suggestions from participants in this study that there also needs to be more focus on what is going well as opposed to what went wrong in the facilitation of care, when discussing risk.

6. **Not following best practice could have legal implications for practitioners.** While this thesis highlights how a fear of being implicated in litigation has increased intervention rates for women there seems to be little awareness or formal thought put into the legal implications of not following best-evidence guidelines. There needs to be a stronger focus on working according to best evidence from clinical governance to staff working on the ground while at the same time keeping the woman involved in all aspects of her care.
7. **Women's choice of care options is influenced by the way risk is presented.** This thesis, drawing on interviews with healthcare professionals in maternity services, highlights the increasing pressure that women are under to behave in a 'responsible manner' when it comes to their pregnancy and birth. The way risk is presented to women will have an influence on their behaviour and ultimately their choices. For example, if women are presented with the choice of a healthy baby versus any element of risk the woman is likely to choose the former. Maternity practice must present risk in an unbiased manner, presenting it in an understandable format so that women can make informed choices. Opportunities for healthcare professionals to engage women in formal discussions on risk and choice must become a priority if women are to become responsible decision-makers.

6.3.2 Implications for maternity healthcare policy

This section reflects on the implications for policy in relation to maternity services emerging from the findings of this study and conclusions presented in this thesis. Across many high-income countries there has been a shift in policy towards increasing social models of maternity care as outlined in Table 1.3 (in the introductory chapter). Dutch policy intentionally protects the status of the midwife and midwifery-led care (De Vries *et al*. 2013) and Australian policy has made a strategic commitment to shift to primary care (AIWH 2016). Ireland has produced its first strategy on maternity care in 2016 (Ireland, Department of Health 2016). Prior to this, maternity care in Ireland relied on general health policy or was guided by policy from the UK. Policy in the UK has supported the introduction of social models of care, including midwifery-led models, for birthing women for over 20 years. This is reflected in *The Changing Childbirth Report* (UK, Department of Health 1993, *Maternity Matters* (UK, Department of Health 2007) and the most recent review of maternity services in England – *Better Births; Improving outcomes for maternity services in England* (NHS 2015). These policies advocate for choice, access and continuity of care. The latest review in England places importance on

personalised care for women, babies and their families. The first Irish Maternity Strategy, *Creating a better future together: National Maternity Strategy 2016-2026* (Ireland, Department of Health 2016), similarly advocates for maternity services that are woman-centred and recommends midwifery-led models of care for low-risk women. Despite Irish policy advocating for improvements in the quality and safety of maternity care, this thesis highlights the possibility of challenges in implementing it due to the conditions that prevail in hospital maternity service settings, where the majority of women birth.

1. **Difficulties in policy implementation related to increasing midwifery-led models of care.** Despite policy advocating for increased social models (this includes midwifery-led models) of care and equity of choice for birthing women in the UK for the last 20 years, there has been little change in practice with many women still denied access and choice in their maternity care (Scamell 2014). For Irish maternity services, there are similar difficulties. This thesis highlights how implementing increased midwifery-led models of care may be a very slow process due to insufficient midwives with experience of midwifery-led models of care. Also, evident in this thesis is that midwives may not want the responsibility of leading change in the present climate of fear. Implementing a requirement for midwives to experience midwifery-led care in their training, as part of policy, might be a first step as part of a solution to this problem.
2. **Irish maternity policy acknowledges the importance of choice, including midwifery-led care, for women but does not particularly place significance on the unique role of the midwife.** UK policy (Maternity Matters (UK, Department of Health 2007), Midwifery 2020 (Chief Nursing Officers of England, Northern Ireland, Scotland and Wales (2010)) highlights the importance of the role of midwives in maternity care with the midwife being promoted as the first point of contact with the services for most women. It advocates that all women need a midwife while only some will need a doctor. The Irish Maternity Strategy (Ireland, Department of Health 2016) does not highlight the unique role of the midwife which may prevent other professions and women from realising the importance of midwives in contributing to the care of all women but particularly in promoting and protecting physiological birth. There needs to be more focus on the role of the midwife at both national and local level policy to ensure women are receiving appropriate care from the most appropriate professional. As highlighted in this thesis the role of the

midwife is being eroded and changes must be implemented to protect midwifery in the best interests of women and babies.

3. **Midwifery-led models of care should be under a separate governance framework to medical models of maternity care but current policy places midwifery-led care under medical jurisdiction.** The Irish maternity strategy (Ireland, Department of Health 2016) suggests that midwifery-led models of care are to be co-located with an obstetric-led hospital unit. While this has the advantage of sharing resources and being near medical support for emergencies the strategy also advocates that midwifery-led models remain under the governance of a medical model. This thesis illustrates how this model venerates obstetric notions of risk and may have negative implications for midwifery-led care and physiological birth. It is suggested that clinical governance for midwifery-led care should be separate from that of the medical model but with access to obstetricians when care is no longer within the scope of normality- i.e. outside the remit of midwifery care.
4. **Difficulties in policy implementation related to woman-centred care.** The new Irish maternity strategy (Ireland, Department of Health 2016) places great importance on woman-centred care. While this is hugely positive this thesis highlights how the increasing perception of birth in terms of risk may hinder strategies that place the woman in the position of chief decision-maker in her care as advocated by the NMBI (2015). More formal discussions of risk with women, as part of their care, may contribute to positively changing current practice in which women are stratified by risk with little personal input from them. Strategies and policies need to be put in place at local level to ensure women are at the centre of decision-making and that healthcare professionals adhere to this approach.

It is acknowledged that positive outcomes in terms of a healthy baby and healthy mother must always come first, ahead of any agendas concerned with healthcare professionals' or institutional interests, including professional hierarchy and professional autonomy and identity as elaborated in this research. Assessment of risk and safety are the key issues considered in making judgements on the most appropriate models of care and the level of interventions needed to produce such positive outcomes. The strong tendency to 'err on the side of caution' means that low-risk women often receive care more appropriate to higher-risk women. Finding the balance here is a real

challenge especially when it needs to be negotiated in the busy environment of hospital birth settings.

6.3.3 Recommendations for practice and policy

The findings from this thesis highlight a number of issues that are impacting on the structure and processes of maternity care and in particular those that affect the facilitation of normal, physiological birth. These issues and their implications for practice have been discussed in section 6.3, suggesting instances where care could be improved for women and babies. This section lays out the recommendations for practice and policy as short, medium and long-term goals.

Short-term goals

- Create care pathways that support midwives to facilitate physiological birth within obstetric-led units, increasing their confidence to deliver high quality care that is appropriate for women and babies. These pathways could highlight that low-risk women who remain low-risk do not require routine obstetric review on the labour ward.
- Involve women in the process of risk stratification, including on-going discussions on how they perceive risk in relation to their pregnancy and birth, enhancing their ability to exercise choice and become informed decision-makers.
- Provide a safe environment for healthcare providers to discuss issues of risk and ensure there is protected time for formal reflection on risk.
- Conduct audits to identify what works well, areas for development and to establish links to evidence-based practice. Create opportunities to explore with midwives what is needed to support application of evidence-based practices – e.g. information, continued professional development, peer support and mentoring.

Medium-term goals

- Support and encourage midwives to take on autonomous roles when facilitating care for women. This could include the midwife as the first point of care for all women entering the maternity services. Following this initial meeting high-risk women would be referred by a midwife to obstetric-led care and low-risk women would remain under the care of the midwife.
- Increase opportunities for midwives to work in midwifery-led models of care. The Irish Maternity Strategy (Ireland, Department of Health 2016) has

highlighted the requirement for a training needs analysis associated with implementation of the strategy. Suggestions to prepare midwives for the strategy could include the requisite that midwives work in midwifery-led models of care in Ireland or abroad for a two-week period on at least a yearly basis.

- Increase midwifery student placements in midwifery-led models of care. Higher education institutions have begun to implement this recommendation but student exposure to midwifery-led models of care needs to further increase. This may not be practical until further midwifery-led models of care are developed.
- Clinical governance to adopt policies and strategies that highlight the importance of the midwife. This could include local poster campaigns to highlight midwifery to the public. Policies and guidelines could also make specific reference to the autonomous role of the midwife, where appropriate.

Long-term goals

- Incorporate a risk reductionist approach to planning and auditing maternity care. Salutogenesis has been suggested by Downe (2010) as a theory to deal with the high levels of intervention in maternity care.
- Highlight the unique and important role of the midwife at national level policy to ensure that there is increased awareness within healthcare and amongst the public of the advantages of midwifery care. The importance of the role of the midwife is apparent in policy in the UK but in the Irish Maternity Strategy (Ireland, Department of Health 2016) the unique role of the midwife is not highlighted.
- Midwifery-led models of care to have a separate clinical governance structure to obstetric-led models but with input from other pertinent professions. Ease of referral to obstetric-led models of care would be imperative in such a structure.
- Increase number of midwifery-led models of care in the country. The Irish Maternity Strategy (Ireland, Department of Health 2016) has highlighted the need for women to have access to a choice of care options and facilities. While choice for women still varies significantly between different geographical areas some units are making strides in implementing midwifery-led models of care. Despite this there is still scope for vast development in this area.

These recommendations for practice are, for the most part, attainable without the need for huge monetary resources. Midwifery can be the profession that institutes many of these changes by adopting their own philosophical underpinnings that support and

protect normal birth, putting women at the centre of care and applying it to practice. Midwives need to become more vocal about their role and contributions to maternity care and this will include entering the political arena to influence local and national policy. It is important that we continually strive to improve care for women and babies and these recommendations for practice may contribute to both midwives and other professions making the necessary changes.

6.4 Methodological implications of thesis

The research process as planned and executed in the completion of this thesis brought challenges but also many strengths. The following section outlines and reflects on both the limitations and strengths of the research study.

6.4.1 Limitations of thesis

While a qualitative design was deemed the most suitable for this research there is acknowledgement that the findings will be subjective. However, the process of analysis involved on-going review by myself and my two supervisors to arrive at our conclusions and to achieve consistency in interpretation of the data. While this study attempts to understand perceptions across a variety of maternity units and settings, the findings cannot be generalised. Transferability is established by reporting a dense description of the research participants including demographics and other relevant characteristics (Lincoln and Guba 1985) but this study was limited in the extent of the participants' characteristics (descriptors) it could publish connected to the commitment to anonymity and confidentiality assured under research ethics. Relatively, there are small numbers of obstetricians and midwives working in a small number of maternity hospitals in the Republic of Ireland such that revealing a larger range of descriptive characteristics of the study participants could make them more easily identifiable. Detailed characteristics of research participants were collected but not reported.

Data from additional sources would have furthered triangulation and added to the reliability of the research findings. Observation of practice in maternity settings was proposed at the outset, as an additional method of data collection, but this was denied by the ethics committee. The reason given was that gaining informed consent from all involved (women and healthcare workers) would be required and this would prove too difficult. Furthermore, a significant limitation of this thesis is the lack of primary data relating to women's perceptions of risk. However, this was considered not feasible within the proposed timeframe. The primary study relies on healthcare professionals'

views regarding how they believe women perceive risk related to labour and birth. While this approach generated findings bringing important insights, including an understanding of how healthcare professionals perceive women view their care, investigating women's perceptions would be an important next step.

6.4.2 Strengths of thesis

Although there are limitations to this thesis it also has many strengths which are outlined and reflected upon in this section. The topic of this thesis, how perceptions of risk affect care facilitated for low-risk birthing women, is a complex phenomenon, that I as a clinical practitioner and researcher believed needed further investigation due to continued unnecessary intervention for low-risk women in labour. While there was limited research on this topic regarding midwives' views there was almost none that investigated both midwives and obstetricians' perceptions of risk in the same study. To my knowledge there was also no investigation of this topic within the Irish maternity services.

Incorporating a systematic, integrative approach to the literature review ensured a rigorous approach to gathering and synthesising the evidence from existing research on the topic. It also contributed to identifying gaps in the research, and to formulating a solid research question for the primary study. The findings of this review contributed to a richer understanding of the topic, providing a robust foundation for the detailed research design. Paper 2 expanded the concept of women's considerations of risk regarding pregnancy and birth and provided a discussion on how the processes and structures of the current maternity service are affected by and affecting perceptions of risk. This provided further insight into the research topic prior to undertaking the main study.

For the primary study, the basis of papers 3 and 4, a qualitative approach was taken as described in the methods section in the introductory chapter. This provided the insights needed to gain a deeper understanding of the complex phenomenon of risk perception that could not have been obtained from a quantitative method of inquiry. Using a pluralistic framework for the research design allowed a flexible approach, ensuring that the most appropriate strategies were incorporated to answer the research question. This study involved interviewing both midwives and obstetricians and included a variety of grades within these professions. This ensured a unique contribution to the current state of knowledge by examining the topic from different perspectives within the key healthcare professions and from practitioners with different levels and types of

responsibility and experience. The study also included different types of maternity settings. This added to knowledge development by examining how context can affect risk perception. Obstetricians that worked closely with midwifery-led models were also included in the sample, providing a unique insight into the topic.

My background in midwifery is acknowledged as both a strength and a limitation of the thesis. While it could have resulted in a subjective interpretation of the data I was mindful of this and I continually reflected how both my status as a midwife and my interest in homebirth may affect my findings. My supervisors, neither of whom are midwives, contributed to this reflexive process. As a strength, my midwifery background contributed to purposive sampling techniques, in gaining access to maternity settings and confidence in discussing the issues with healthcare professionals. I feel it also aided in building trust with participants of the study which enhanced the quality of the data.

6.5 Reflexive Strategies

Throughout the research process I have adopted reflexive strategies to enhance the trustworthiness of the study findings. By taking a social constructionist stance, I acknowledge that the researcher is essential to the argument but I have attempted to intentionally include myself in the work rather than have my personal biases unconsciously influence the design and findings of the study. The following section describes reflexive strategies undertaken in the research process.

Researcher reflexivity is the capacity of the researcher to understand and identify where their own experiences may impact the process and outcome of inquiry (Etherington 2004). Strategies adopted in this study included a reflective journal to increase my awareness of how my own thoughts, feelings, culture, personal history and profession may impact on this research. This journal was commenced at the beginning of my PhD journey and allowed me to recognise my biases prior to making a final decision on my research topic right through to identifying suitable research sites and participants, data collection, analysis and presentation of findings. In the introductory chapter I have given a synopsis of my professional background and identified what directed me to the topic of this thesis, revealing my professional and personal orientations to the research topic. This allows the reader to put the findings into context and contribute to an understanding of how I have included myself in the research process.

I decided to deliberately avoid collecting data in the maternity unit in which I worked as a staff midwife as I believed my relationship with the participants would have been affected by our reactions to each other during the interview process. I was aware that I may have been intimidated by participants in senior positions. In addition, participants may not have been comfortable disclosing certain information to me as we worked together, despite a guarantee of confidentiality.

Field notes were written after every interview during the data collection process. In these I recorded my feelings and initial thoughts about the interview process and, in particular, my interviewing technique. I noted after one interview, in which I found it difficult to elicit depth of data from a participant that it was tempting to probe with leading rather than unbiased prompts. Reflection on this helped me to adopt techniques such as waiting longer for responses and using prompts more efficiently in an unbiased manner.

Detailed discussions with my supervisors throughout the research process contributed greatly to reflexivity. Neither of my supervisors are midwives so they added an alternative view that helped to counteract my unnoticed professional biases. Some interesting conversations took place about the differences between the way nurses and midwives may approach healthcare. Both supervisors, who come from separate professional and theoretical backgrounds, were involved in the data analysis process. They challenged me to listen to what the data was divulging rather than using it to verify my own beliefs. On occasion, restructuring the data after in-depth discussions with my supervisors, contributed to insights that were more meaningful and which I had not previously noticed.

While reflexivity informed every aspect of the research process this section provides a synopsis of how I incorporated reflexive strategies into the study. I have also included reflexive statements throughout the thesis that will alert the reader to strategies undertaken. I acknowledge that these developing reflexive skills have certainly contributed to my growth as a researcher throughout the PhD process and will in turn assist me to produce quality research as I go forward in my career.

6.6 Future research

Based on the findings of this thesis several recommendations for future research are made. These recommendations intend to contribute to on-going knowledge

development in maternity care and to improve the experience of birth for women and babies and for the healthcare professionals working in the system.

1. Design and carry out research that investigates women's perceptions of risk regarding labour and birth. It is envisaged that this would involve researching women who intend to birth in a variety of settings. Undertaking this research from the early stages of antenatal care or even pre-conceptually to a period after the birth is foreseen as beneficial in furthering an understanding of risk and how perceptions might change over time.
2. Examine how maternity facilities operate in terms of woman-centred care, what is understood by woman-centred care and investigate where improvements could be made. An ethnographic study could be a suitable research design for a project such as this. Further discussion with maternity services and ethics committees would be required prior to consideration of such a study.
3. Explore the need for further research relating to midwives' confidence in transferring to work in midwifery-led settings
4. Carry out research within the Irish setting to examine how the new Irish Maternity Strategy (Ireland, Department of Health 2016) can be implemented into practice. This could also include evaluating measures from the strategy that have been implemented into practice already.

In terms of my future plans for research, my first step would be to design a study investigating women's perceptions of risk regarding labour and birth in an Irish setting. While quite a few studies have reported findings related to women's perceptions of birthing at home I believe further research exploring those experiences of women birthing in a hospital setting and choosing obstetric-led care would strengthen the current body of research related to the topic of this thesis. In the future, I would like to engage with a broader set of methods, particularly quantitative or mixed methods. I would be interested in using different approaches to data collection and participant engagement. One area I would like to develop further would be the use of vignettes to explore the concept of risk. I believe this would help participants to explore different scenarios that may not have come to mind during data collection. It would also enable participants to further explore their decision-making in relation to facilitation of care.

6.6 Conclusion

Through an extensive review of the literature and generation of empirical data I propose that this thesis has:

- Explicated the need for research into how midwives' and obstetricians' perceptions of risk affect the care they facilitate for low-risk women in labour to ensure women are receiving appropriate care.
- Generated data that can contribute to positive change for birthing women.
- Generated data that can instigate reflection on how risk perception is affecting personal and collective beliefs regarding care of low-risk birthing women.
- Contributed to an informed conversation on recommendations for policy and practice change within the maternity services.

While the process of undertaking and completing this thesis has often been challenging it has also been enlightening. I faced the task of planning and executing a research project using an appropriate research design and with methodological rigour. This thesis has served its purpose of immersing me in the research process to a point where I now have a deeper understanding of how research can contribute to changing practice which in turn can optimise the experiences of women and their families. Alternatively, I now also see how essential it is that the research on which we base our practice is of good quality otherwise there can be long-term negative consequences.

I hope this research study will contribute to positive changes within the maternity services. For me, it has provided an opportunity to reflect on my own practice and see where the concept of risk has provided challenges both as an individual practitioner and within a team. I increasingly employ the findings from my thesis and from the broader literature to inform my practice; I am more aware of the existence and impact of institutionalised thinking and am prepared to voice opinions to counteract it. I have more confidence to question why I am undertaking an intervention and am eager to have open discussions on this with my colleagues and birthing women. In my role as a teacher for student midwives I place more emphasis on directing them to question their practice i.e. why are they undertaking a certain task? Is the woman properly informed? Is the woman at the centre of her care? Are you using best evidence to support your practice? I now encourage students to engage further with research as my overall experience during data collection was that obstetricians appeared to be more prepared to discuss the literature underpinning evidence-based practice than their midwifery

colleagues. I believe it will strengthen the position of midwifery if they have a solid grounding in both skills and knowledge.

Studying at the level of PhD has not only encouraged me to unravel the research process at a deeper level it has also stimulated me to question practice, attitudes and organisation of care. It has taught me in many respects to look at the bigger picture and to understand that many aspects of healthcare are complex and in need of ongoing investigation.

6.8 References

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Appendices

Appendix A – HSE criteria to define a low-risk woman

Table 1: Medical conditions requiring planned birth at an obstetric unit	
Disease area	**Medical condition**
Cardiovascular	• Confirmed cardiac disease • Hypertensive disorders
Respiratory	• Asthma requiring an increase in treatment or hospital treatment or requiring steroid treatment in last year • Cystic fibrosis
Haematological	• Haemoglobinopathies – sickle-cell disease, beta-thalassaemia major • History of thromboembolic disorders • Immune thrombocytopenia purpura or other platelet disorder or platelet count below 100 000 • Von Willebrand's disease • Bleeding disorder in the woman or unborn baby • Atypical antibodies which carry a risk of haemolytic disease of the newborn
Infective	• Risk factors associated with group B streptococcus whereby antibiotics in labour would be recommended • Infective Hepatitis B or Hepatitis C • Carrier of/infected with HIV • Toxoplasmosis – women receiving treatment • Current active infection of chicken pox/rubella/genital herpes in the woman or baby • Tuberculosis under treatment
Immune	• Scleroderma • Systemic lupus erythematosus
Endocrine	• Diabetes • Maternal thyrotoxicosis
Renal	• Abnormal renal function • Renal disease requiring supervision by a renal specialist
Neurological	• Epilepsy • Myasthenia gravis • Previous cerebrovascular accident
Gastrointestinal	• Liver disease associated with current abnormal liver function tests
Psychiatric	• Psychiatric disorder requiring current in-hospital care and / or requiring specialist • care

Table 2: Other requiring planned birth at an obstetric unit	
Factor	**Additional information**
Previous pregnancy complications	• Unexplained stillbirth/neonatal death or previous death related to intrapartum difficulty [to be discussed with neonatologists] • Previous baby with neonatal encephalopathy • Pre-eclampsia requiring preterm birth • Placental abruption with adverse outcome • Eclampsia • Uterine rupture • Primary postpartum haemorrhage requiring additional • pharmacological treatment or blood transfusion • Caesarean section • Shoulder dystocia
Current pregnancy	• Multiple birth • Placenta praevia • Pre-eclampsia or pregnancy-induced hypertension • Post-term pregnancy [For medical review by 42 weeks] • Preterm labour< 37 +0 • Preterm pre-labour rupture of membranes • Term pregnancy (37+0 to 42+0) pre-labour rupture of membranes for more than 24hrs • Placental abruption • Anaemia – haemoglobin less than 10g/dl at onset of labour • Confirmed intrauterine death • Induction of labour • Substance misuse • Alcohol dependency requiring assessment or treatment • Onset of gestational diabetes • Malpresentation – breech or transverse lie • Recurrent antepartum haemorrhage
Foetal indications	• Small for gestational age in this pregnancy (less than 5th centile or reduced growth velocity on ultrasound) • Abnormal foetal heart rate (FHR)/Doppler studies • Ultrasound diagnosis of oligo/polyhydramnios
Previous gynaecological history	• Myomectomy • Hysterotomy

Table 3: Medical conditions requiring assessment by consultant obstetrician when planning place of birth	
Disease area	**Medical condition**
Cardiovascular	• Cardiac disease without intrapartum implications
Haematological	• Atypical antibodies not putting the baby at risk of haemolytic disease • Sickle-cell trait • Thalassaemia trait
Immune	• Nonspecific connective tissue disorders
Endocrine	• Hyperthyroidism • Unstable hypothyroidism such that a change in treatment is required
Skeletal/neurological	• Spinal abnormalities • Previous fractured pelvis • Neurological deficits
Gastrointestinal	• Liver disease without current abnormal liver function • Crohn's disease • Ulcerative colitis

Table 4: Other factors requiring assessment by consultant obstetrician when planning place of birth	
Factor	**Additional information**
Previous complications	• Stillbirth/neonatal death with a known non-recurrent cause • Pre-eclampsia developing at term • Placental abruption with good outcome • History of previous baby more than 4.5 kg • Extensive vaginal, cervical, or third- or fourth-degree perineal trauma • Previous term baby with jaundice requiring exchange transfusion • Retained placenta requiring manual removal in theatre
Current pregnancy	• Antepartum bleeding of unknown origin (single episode after 24 weeks of gestation) • Body mass index at booking of ≥ 35 or < 18 kg/m² • Blood pressure of 140 mmHg systolic or 90 mmHg diastolic on two occasions • Clinical or ultrasound suspicion of macrosomia • Para 6 or more • Recreational drug use • Under current outpatient psychiatric care • Age over 40 at booking
Fetal indications	• Fetal abnormality
Previous gynaecological history	• Major gynaecological surgery • Cone biopsy or large loop excision of the transformation zone • Fibroids • Female circumcision

Appendix B – NVivo 11 screenshots that provide examples of levels of coding (Yin 2011)

Disassembling: level 1 coding

women wanting homebirth a minority		1	1	29/01/2015 09:29	SH	07/09/2015 15:38	SH
women need more education on interventions		1	1	29/01/2015 09:23	SH	07/09/2015 15:38	SH
women and their partners afraid of homebirth		1	1	29/01/2015 09:27	SH	07/09/2015 15:38	SH
very busy unit means no support for junior midwives		1	2	29/01/2015 09:04	SH	07/09/2015 15:38	SH
unable to say no to women in regards to early induction		1	1	29/01/2015 09:21	SH	07/09/2015 15:38	SH
trying to keep PPs happy post recession so give early IOL		1	1	29/01/2015 09:22	SH	07/09/2015 15:38	SH
trusts homebirth but very messy		1	1	29/01/2015 09:31	SH	07/09/2015 15:38	SH
there is a real place for obstetrics		1	1	29/01/2015 08:59	SH	07/09/2015 15:38	SH
students would benefit from seeing more normal		1	1	29/01/2015 09:18	SH	07/09/2015 15:38	SH
students seeing too much medicalised birth		1	2	29/01/2015 09:10	SH	07/09/2015 15:38	SH
safety is a priority		1	1	29/01/2015 08:51	SH	07/09/2015 15:38	SH
policies as support but also as a restarint		1	1	29/01/2015 09:42	SH	07/09/2015 15:38	SH
passionate about getting midwifery-led care running		1	2	29/01/2015 09:44	SH	07/09/2015 15:38	SH
over availability of obstetric care		1	1	29/01/2015 09:02	SH	07/09/2015 15:38	SH
only money will prevent DOMINO going ahead		1	1	29/01/2015 09:45	SH	07/09/2015 15:38	SH
no time in clinic to educate women		1	1	29/01/2015 09:26	SH	07/09/2015 15:38	SH
need far more education around normal birth		1	1	29/01/2015 09:13	SH	07/09/2015 15:38	SH
midwives need to take more responsibility		1	1	29/01/2015 09:01	SH	07/09/2015 15:38	SH
midwives experienced in normal need to lead the education of normality		1	1	29/01/2015 09:14	SH	07/09/2015 15:38	SH
midwifery-led care will strive to refrain from obstetric practices		1	1	29/01/2015 09:39	SH	07/09/2015 15:38	SH
midwifery managers have to spend too much tiome on admin		1	2	29/01/2015 09:03	SH	07/09/2015 15:38	SH
midwifery management the biggest obstacle to DOMINO		1	2	29/01/2015 09:33	SH	07/09/2015 15:38	SH
midwifery fighting for its role		1	1	29/01/2015 08:57	SH	07/09/2015 15:38	SH
midwifery autonomy being lost		1	2	29/01/2015 08:52	SH	07/09/2015 15:38	SH
medicalised environment goes against normal		1	1	29/01/2015 09:37	SH	07/09/2015 15:38	SH
many obstetricians don't trust the birth process		1	1	29/01/2015 08:55	SH	07/09/2015 15:38	SH
making compromises to get midwifery-led care going		1	1	29/01/2015 09:00	SH	07/09/2015 15:38	SH
lack of resources affect normal birth		1	2	29/01/2015 09:34	SH	07/09/2015 15:38	SH
lack of confidence of doctors is causing early inductions		1	1	29/01/2015 09:20	SH	07/09/2015 15:38	SH
labour too late to educate women		1	1	29/01/2015 09:25	SH	07/09/2015 15:38	SH
junior midwives need more support from managers to not involve obstetric team too early		1	1	29/01/2015 09:04	SH	07/09/2015 15:38	SH
inductions driving up cs rate		1	1	29/01/2015 09:19	SH	07/09/2015 15:38	SH

Disassembling: level 2 coding

women don't challenge the system in Ireland		0	0	25/08/2015 10:44	SH	25/08/2015 10:44	SH
women do not understand optimum birth		0	0	25/08/2015 10:44	SH	25/08/2015 10:44	SH
women are vulnerable in labour		0	0	25/08/2015 10:44	SH	25/08/2015 10:44	SH
women are not educated enough antenatally		0	0	25/08/2015 10:41	SH	25/08/2015 10:41	SH
women are disempowered in maternity services		0	0	25/08/2015 10:42	SH	25/08/2015 10:42	SH
women are denied choice		0	0	25/08/2015 10:41	SH	25/08/2015 10:41	SH
using subterfuge in hospital in women's best interests		0	0	25/08/2015 10:44	SH	25/08/2015 10:44	SH
supportive management imperative for community midwifery		0	0	25/08/2015 10:41	SH	25/08/2015 10:41	SH
stressful working as a midwife in a hospital		0	0	25/08/2015 10:41	SH	25/08/2015 10:41	SH
safety a priority in homebirth		0	0	25/08/2015 10:44	SH	25/08/2015 10:44	SH
risk management over rules optimum care due to fear		0	0	25/08/2015 10:40	SH	25/08/2015 10:40	SH
relationship based care is so important		0	0	25/08/2015 10:42	SH	25/08/2015 10:42	SH
obstetrics is lucrative		0	0	25/08/2015 10:43	SH	25/08/2015 10:43	SH
most midwives are afraid to do homebirth		0	0	25/08/2015 10:43	SH	25/08/2015 10:43	SH
midwives have little experience of physiological birth in Ireland		0	0	25/08/2015 10:42	SH	25/08/2015 10:42	SH
midwives do not stake their claim in regards to normal birth		0	0	25/08/2015 10:42	SH	25/08/2015 10:42	SH
midwives are not being advocates for women in the hospital		0	0	25/08/2015 10:43	SH	25/08/2015 10:43	SH
little understanding or regard for normality or phsysiological processes in the hospital		0	0	25/08/2015 10:41	SH	25/08/2015 10:41	SH
joy gone out of birth in the hospital		0	0	25/08/2015 10:43	SH	25/08/2015 10:43	SH
intervention including pain relief is seen as necessary		0	0	25/08/2015 10:40	SH	25/08/2015 10:40	SH
fear of homebirth from hospital practitioners		0	0	25/08/2015 10:41	SH	25/08/2015 10:41	SH
culture of intervention in the hospital		0	0	25/08/2015 10:42	SH	25/08/2015 10:42	SH
community midwifery-led care is very women-centered		0	0	25/08/2015 10:43	SH	25/08/2015 10:43	SH
care is not always evidence-based in the hospital		0	0	25/08/2015 10:40	SH	25/08/2015 10:40	SH
care in hospitals is not women-centered		0	0	25/08/2015 10:39	SH	25/08/2015 10:39	SH
birth needs to be promoted in a positive light		0	0	25/08/2015 10:43	SH	25/08/2015 10:43	SH

Reassembling: connecting ideas and concepts

Women are expecting a medical experience	0	0	08/12/2015 13:33	SH	08/12/2015 16:51	SH
supporting and empowering women to have normal births is important	0	0	08/12/2015 13:35	SH	08/12/2015 16:51	SH
Support for midwifery-led care - maybe in theory only	0	0	08/12/2015 13:12	SH	08/12/2015 16:51	SH
Role of the midwife in normal birth	0	0	08/12/2015 13:17	SH	08/12/2015 16:51	SH
Role of doctor in normal birth	0	0	08/12/2015 13:26	SH	08/12/2015 16:51	SH
Respect for midwives and midwifery	0	0	08/12/2015 13:32	SH	08/12/2015 16:51	SH
perceptions of risk regarding place of birth	0	0	08/12/2015 13:37	SH	08/12/2015 16:51	SH
midwives understanding of and embracing their full scope of practice	0	0	08/12/2015 13:28	SH	08/12/2015 16:51	SH
midwives have similiar views to doctors - they are very medicalised	0	0	08/12/2015 13:23	SH	08/12/2015 16:51	SH
midwives are over relying on doctors	0	0	08/12/2015 13:32	SH	08/12/2015 16:51	SH
Midwifery-led care not supported	0	0	08/12/2015 12:57	SH	08/12/2015 16:06	SH
Midwifery autonomy	0	0	08/12/2015 13:14	SH	08/12/2015 16:51	SH
Midwifery and obstetric leadership important to counteract risk perceptions	0	0	08/12/2015 13:10	SH	08/12/2015 16:28	SH
medical focus on organisation of care	0	0	08/12/2015 13:08	SH	08/12/2015 16:28	SH
in obstetric-led unit it can be difficult to keep things normal	0	0	08/12/2015 13:40	SH	08/12/2015 16:51	SH
importance of relationship-based care for women but not usually available	0	0	08/12/2015 13:35	SH	08/12/2015 16:53	SH
Experience or lack of experience of normal birth	0	0	08/12/2015 13:03	SH	08/12/2015 16:28	SH
Doctors unnecessarily involved with low-risk women	0	0	08/12/2015 13:03	SH	08/12/2015 16:28	SH
choosing private practice	0	0	05/01/2016 11:10	SH	26/09/2017 15:28	SH

Reassembling: theme formation

Balancing risk and intervention with normality		0	0	26/02/2016 09:32	SH	26/02/2016 09:32	SH
What are we counting as interventions		0	0	26/02/2016 12:04	SH	29/02/2016 16:22	SH
trying to reduce risk		0	0	29/02/2016 15:46	SH	05/10/2017 16:38	SH
technology V traditional skills		0	0	29/02/2016 13:18	SH	05/10/2017 16:38	SH
stressful working in a birthing environment		0	0	26/02/2016 12:52	SH	29/02/2016 16:22	SH
safety as the pinnacle and not the baseline		0	0	29/02/2016 15:51	SH	05/10/2017 16:38	SH
risk is very subjective		1	1	29/02/2016 12:14	SH	05/10/2017 16:38	SH
experience and confidence in skills reduces unnecessary interve		0	0	29/02/2016 16:12	SH	05/10/2017 16:38	SH
emotional decision-making		0	0	29/02/2016 15:54	SH	05/10/2017 16:38	SH
decison-making does not look at long term effects		0	0	29/02/2016 16:01	SH	05/10/2017 16:38	SH
cannot and should not guarantee a perfect outcome		0	0	29/02/2016 12:04	SH	29/02/2016 16:22	SH
busines can increase intervention		0	0	29/02/2016 16:08	SH	05/10/2017 16:38	SH
birth is uncertain and decison-making can be difficult		0	0	29/02/2016 13:47	SH	05/10/2017 16:38	SH
belief in interventions		0	0	26/02/2016 09:51	SH	29/02/2016 16:22	SH
awareness of cascade of interventions		0	0	29/02/2016 13:16	SH	05/10/2017 16:38	SH

Appendix C – Crowe Critical Appraisal Tool (CCAT) Form (v1.4)

Crowe Critical Appraisal Tool (CCAT) Form (v1.4) Reference Reviewer

This form must be used in conjunction with the CCAT User Guide (v1.4); otherwise validity and reliability may be severely compromised.

Citation	
	Year

Research design (add if not listed)		
❑ Not research	Article | Editorial | Report | Opinion | Guideline | Pamphlet | …	
❑ Historical	…	
❑ Qualitative	Narrative | Phenomenology | Ethnography | Grounded theory | Narrative case study | …	
❑ Descriptive, Exploratory, Observational	A. Cross-sectional | Longitudinal | Retrospective | Prospective | Correlational | Predictive | …	
	B. Cohort | Case-control | Survey | Developmental | Normative | Case study | …	
Experimental	❑ True experiment	Pre-test/post-test control group | Solomon four-group | Post-test only control group | Randomised two-factor | Placebo controlled trial | …
	❑ Quasi-experiment	Post-test only | Non-equivalent control group | Counter balanced *(cross-over)* | Multiple time series | Separate sample pre-test post-test [no Control] [Control] | …
	❑ Single system	One-shot experimental *(case study)* | Simple time series | One group pre-test/post-test | Interactive | Multiple baseline | Within subjects *(Equivalent time, repeated measures, multiple treatment)* | …
❑ Mixed Methods	Action research | Sequential | Concurrent | Transformative | …	
❑ Synthesis	Systematic review | Critical review | Thematic synthesis | Meta-ethnography | Narrative synthesis | …	
❑ Other	…	

Variables and analysis		
Intervention(s), Treatment(s), Exposure(s)	Outcome(s), Output(s), Predictor(s), Measure(s)	Data analysis method(s)

Sampling										
Total size		Group 1		Group 2		Group 3		Group 4		Control	
Population, sample, setting											

Data collection (add if not listed)			
Audit/Review	a) Primary | Secondary | … b) Authoritative | Partisan | Antagonist | … c) Literature | Systematic | …	Interview	a) Formal | Informal | … b) Structured | Semi-structured | Unstructured | … c) One-on-one | Group | Multiple | Self-administered | …
Observation	a) Participant | Non-participant | … b) Structured | Semi-structured | Unstructured | … c) Covert | Candid | …	Testing	a) Standardised | Norm-ref | Criterion-ref | Ipsative | … b) Objective | Subjective | … c) One-on-one | Group | Self-administered | …

Scores										
Preliminaries		Design		Data Collection		Results		Total [/40]		
Introduction		Sampling		Ethical Matters		Discussion		Total [%]		

General notes

Category Item	Item descriptors [Present; Absent; ■ Not applicable]	Description [Important information for each item]	Score [0–5]
1. Preliminaries			
Title	1. Includes study aims ❑ and design ❑		
Abstract (assess last)	1. Key information ❑ 2. Balanced ❑ and informative ❑		
Text (assess last)	1. Sufficient detail others could reproduce ❑ 2. Clear/concise writing ❑, table(s) ❑, diagram(s) ❑, figure(s) ❑		
		Preliminaries [/5]	
2. Introduction			
Background	1. Summary of current knowledge ❑ 2. Specific problem(s) addressed ❑ and reason(s) for addressing ❑		
Objective	1. Primary objective(s), hypothesis(es), or aim(s) ❑ 2. Secondary question(s) ❑		
	Is it worth continuing?	**Introduction [/5]**	
3. Design			
Research design	1. Research design(s) chosen ❑ and why ❑ 2. Suitability of research design(s) ❑		
Intervention, Treatment, Exposure	1. Intervention(s)/treatment(s)/exposure(s) chosen ❑ and why ❑ 2. Precise details of the intervention(s)/treatment(s)/exposure(s) ❑ for each group ❑ 3. Intervention(s)/treatment(s)/exposure(s) valid ❑ and reliable ❑		
Outcome, Output, Predictor, Measure	1. Outcome(s)/output(s)/predictor(s)/measure(s) chosen ❑ and why ❑ 2. Clearly define outcome(s)/output(s)/predictor(s)/measure(s) ❑ 3. Outcome(s)/output(s)/predictor(s)/measure(s) valid ❑ and reliable ❑		
Bias, etc.	1. Potential bias ❑, confounding variables ❑, effect modifiers ❑, interactions ❑ 2. Sequence generation ❑, group allocation ❑, group balance ❑, and by whom ❑ 3. Equivalent treatment of participants/cases/groups ❑		
	Is it worth continuing?	**Design [/5]**	
4. Sampling			
Sampling method	1. Sampling method(s) chosen ❑ and why ❑ 2. Suitability of sampling method ❑		
Sample size	1. Sample size ❑, how chosen ❑, and why ❑ 2. Suitability of sample size ❑		
Sampling protocol	1. Target/actual/sample population(s): description ❑ and suitability ❑ 2. Participants/cases/groups: inclusion ❑ and exclusion ❑ criteria 3. Recruitment of participants/cases/groups ❑		
	Is it worth continuing?	**Sampling [/5]**	
5. Data collection			

Collection method	1. Collection method(s) chosen ❑ and why ❑ 2. Suitability of collection method(s) ❑	
Collection protocol	1. Include date(s) ❑, location(s) ❑, setting(s) ❑, personnel ❑, materials ❑, processes ❑ 2. Method(s) to ensure/enhance quality of measurement/instrumentation ❑ 3. Manage non-participation ❑, withdrawal ❑, incomplete/lost data ❑	
	Is it worth continuing?	**Data collection [/5]**
6. Ethical matters		
Participant ethics	1. Informed consent ❑, equity ❑ 2. Privacy ❑, confidentiality/anonymity ❑	
Researcher ethics	1. Ethical approval ❑, funding ❑, conflict(s) of interest ❑ 2. Subjectivities ❑, relationship(s) with participants/cases ❑	
	Is it worth continuing?	**Ethical matters [/5]**
7. Results		
Analysis, Integration, Interpretation method	1. A.I.I. method(s) for primary outcome(s)/output(s)/predictor(s) chosen ❑ and why ❑ 2. Additional A.I.I. methods (e.g. subgroup analysis) chosen ❑ and why ❑ 3. Suitability of analysis/integration/interpretation method(s) ❑	
Essential analysis	1. Flow of participants/cases/groups through each stage of research ❑ 2. Demographic and other characteristics of participants/cases/groups ❑ 3. Analyse raw data ❑, response rate ❑, non-participation/withdrawal/incomplete/lost data ❑	
Outcome, Output, Predictor analysis	1. Summary of results ❑ and precision ❑ for each outcome/output/predictor/measure 2. Consideration of benefits/harms ❑, unexpected results ❑, problems/failures ❑ 3. Description of outlying data (e.g. diverse cases, adverse effects, minor themes) ❑	
		Results [/5]
8. Discussion		
Interpretation	1. Interpretation of results in the context of current evidence ❑ and objectives ❑ 2. Draw inferences consistent with the strength of the data ❑ 3. Consideration of alternative explanations for observed results ❑ 4. Account for bias ❑, confounding/effect modifiers/interactions/imprecision ❑	
Generalisation	1. Consideration of overall practical usefulness of the study ❑ 2. Description of generalisability (external validity) of the study ❑	
Concluding remarks	1. Highlight study's particular strengths ❑ 2. Suggest steps that may improve future results (e.g. limitations) ❑ 3. Suggest further studies ❑	
		Discussion [/5]
9. Total		
Total score	1. Add all scores for categories 1–8	